AMERICAN FARMER.

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SPRING WORK—THE ALL-IMPORTANT SEASON TO THE FARMER AND PLANTER.

MARCH.

It is full time for all who are engaged in the culture of the earth, to have laid their plans and completed their arrangements for the season. At all events, it is time that they had settled upon the outlines of their operations for the year. These plans, arrangements, and outlines, we sincerely trust have been well digested and duly considered, so that nothing may be left to chance, or what some term luck. In arriving at conclusions so important to a culturist's interest, he should take a broad and comprehensive view of the resources at his command, the quality and nature of his land, the quantity and quality of his manure, and the force he has to tend the several crops he may contemplate pitching; for he may rest assured that success can only attend him by the proper adaptation of the ends to the means that he may possess. The ambition of stretching one's culture over broad fields without the ability to manure them with a free and generous hand—without the ability to prepare them thoroughly and well, and without the manual force to cultivate neatly such crops as may require it, are among the besetting evils of our country. We call it an evil, because nothing but disappointment, small crops, and a deterioration of the soil, can result from such a course of conduct.

Now, let us put a case to bring the truth home to the practice and experience of our friends. The *corn crop*, for instance. A corn-planter has a field of 100 acres that he desires to put in corn. Well, after counting up all his resources in the shape of manure, he finds that, after all is told, he has only enough to *fully* manure 50 acres; but instead of restricting the extent of his corn culture to his ability to manure the land well, his ambition to have a large corn-field induces him to spread his manure sparsely over the 100 acre field, instead of giving the one-half of it a full dressing. What, let us ask, is the consequence of this mistaken policy? Why this,—the corn plant being a voracious feeder, and finding itself limited to one-half the food it ought to have, to enable it to produce fully, does its best, but all to no avail; its existence is a sickly one, and long before the period arrives when its grain has to be formed, and formed too, in a great measure from the nutriment to be found in the earth, it finds itself almost without food, and as a consequence, its ears are but indifferently filled, at best, while some are not filled at all. The corn-plant is somewhat like a noble work horse—give the former plenty to eat, and good clean culture on a well prepared soil, and its gratitude will be manifested in an abundant yield; give the latter full messes of good nutrimental food, and his day's work will be full and lucrative; but half starve either the one or the other, and, as a natural consequence, failure must be the result, loss, instead of profit the fate of the owner. The corn-planter who only half feeds his crop, is a loser in a triple sense; 1, by cultivating 100 instead of 50 acres, he is taxed with the labor of preparing fifty acres unnecessarily; 2dly, by a greatly reduced crop, and thirdly, by the deterioration of his land.

We have thrown out these views against over-cropping because we have been a painful observer of the folly of it, and will now call attention to other matters.

Sowing Clover-Seed.

Had the weather permitted, it would have been better to have sown clover seed on your wheat fields last month, than this; but if circumstances have occurred to prevent you from doing so, you may safely do so any time during the current month. But if we had our choice in the selection of the precise time, *when* we would sow our clover-seed, we would wait until the frost was entirely out of the ground. We would then sow the seed, lightly harrow it in with a light harrow, and following the harrowing by a heavy roller, the heavier the better. And especially would we subject the ground to these operations, if the wheat crop showed any evidences of having been up-heaved by the contracting and expanding powers of alternations of frost and heat. Now we are aware that many entertain the greatest horror at the very idea of pulling the wheat plants out of the ground by the teeth of the harrow: in this *horror*, however, we do not indulge. Experience, observation, and reflection, teach us better. The harrow, to be sure, will pull up many of the wheat plants—this we freely admit. But, then, most of these will be returned by the roller: the *roller* will not only return a great portion of the roots to the earth, but will also bury many *joints* of the wheat plants, the most of which will take root and grow into wheat bearing plants: thus, by promoting tillering, it will more than compensate for any plants that may be killed by the process of harrowing.—We believe that, for every plant pulled up by the harrow, the *roller*, by the burying of joints, will cause two other plants to grow and bear kernels. This is not all; the harrowing destroys grass and weeds, acts as a cultivation to the wheat plants, and by attracting and absorbing the atmospheric deposits, fertilizes the soil, increases its temperature, encourages the growth of the wheat plants, and increases their yielding powers. These are not ideal results—not mere theoretical opinions,—but are the actual *results* of experience and practice.

Whether, however, you harrow and roll your clover seed in upon your wheat crops, or not, as to you

may seem best, do not, we beseech you, omit to sow it, as clover, in conjunction with lime, marl, or ashes, forms the surest basis upon which the improvement of land rests.

In connection with the subject of sowing clover seed we would remark, that lime should be in every soil on which clover may be grown, as the analysis of its ashes show, that in every 100 parts there are upwards of 35 parts of lime, and that the proportion of organic matters capable of affording nitrogenous substances to be found in a good clover-ley, is more than competent to supply the demands of a full crop of wheat, besides all the mineral substances it needs, and hence it is, that, the season permitting, we always find an abundant yield of wheat when grown upon a clover-ley, when properly prepared.

Quantity of seed per acre.—Not less than 12 lbs. of clover-seed should be sown on every acre—and pains should be taken to distribute it evenly.

Oats.

As our journal circulates over a vast extent of territory, embracing many degrees of latitude, and presenting various climates, it is we feel, time to say a few words in relation to this crop. Now, every good farmer will admit, that the oat is a most notable and necessary grain in the economies of the farm; but admitting this, we fear that the crop is too often put in under circumstances which forbid every hope of a profitable product. Generally speaking, it is consigned to the poorest and most exhausted field on the place—to a field whose soil had been reduced to a condition of utter impoverishment by a long course of improvident culture, in whose soil it finds neither bread nor meat, or if there be any therein, they exist in such minute quantities as to be utterly insufficient to nourish and sustain the crop. Such practice should not be. The oat-crop, under favorable circumstances of manure, soil, preparation of the land, location, and season, may be made to be a highly lucrative one. Give it a well prepared bed of soil, and wherewith therein to feed upon, and it will return you its 30, 40, 50 and 60 bushels of grain to the acre. Instances of much larger yields than the numbers named have been realized, and we maintain, that what has been done, may be done again; provided the same pains be taken to produce similar favorable results. In our day, and in our immediate neighborhood, we saw 2400 bushels of excellent oats raised on a 40 acre field.

It is somewhat singular, but no less frequent, that we hear farmers say that the oat-crop is an impoverishing crop, and that nothing will grow kindly after it; forgetting to consider, that there was no food, or but little, in the field whereon they grew their crop of oats—or rather their apology for an oat-crop—and hence, that the unkindliness of the growth of the crop succeeding the oats, was not ascribable to the oat-crop, but to their own bad management, in having previously robbed the soil of nearly everything edible, or convertible into food. The oat-crop is not more exhausting than other kindred crops; but still everything that grows must be fed.

In view of our opinion of the oat-crop, we say in all candor, that, unless the soil be good, or if not good naturally, made so by manure, it is useless, with the view of profit, of sowing it in oats,—and this truth will hold good with every other crop that grows and bears food for man or animals. Feed your soil, and it will feed you. *Starve it*, and we leave you to draw your own conclusions as to the nevitable result.

Draining.

Your marshes should be drained by open ditches and covered drains. The earth taken out of the ditches should be composted with lime, marl or ashes, and when the ditches and drains have relieved the marsh of its superabundant water, shovel over the compost, spread it evenly over the surface, and sow grass seed.

Permanent Pastures.

If you have no permanent pasture provided for your stock, it is full time to supply this deficiency. If you have one already, give it a top-dressing per acre of 5 bushels of ashes, 2 bushels of bone-dust, and 1 bushel of salt; harrow it in and then roll.

Early Turnips.

As there is no crop which pays better when thrown into the market early, and none more easily grown, than the turnip, where proper pains are taken, we should advise all who may live near a good market to put in an acre, as well for market as for home consumption.

With regard to the *time* of putting them in, without attempting to fix upon any particular day, we will say as a general rule, that *in the spring*, they should be sown as soon as the ground is *entirely free from frost*, the soil susceptible of being put in first rate order, and sufficiently warm to cause the seed to germinate. The sooner the better, after this period, as the turnips should be allowed an opportunity of maturing its root before the weather becomes intensely hot.

Early Potatoes.

The earlier you get your early potatoes into market the better price will they bring—the better will they pay; therefore, as soon as the frost is out of the ground, and the earth in a condition to be ploughed and put in first rate order, get it ready and put in your crop of *early potatoes*.

Jerusalem Artichokes.

Now, if you have a lot containing a few acres, that you can *permanently spare* for the purpose, we do not know to what better purpose you could apply it, than to the cultivation of the jerusalem artichoke, to grow roots to feed your stock on in winter. The artichoke is a good and productive root, yielding 500, or 600 bushels to the acre—we have seen statements of crops too big to name—but we do say, that the quantity we have named can be raised, and raised at as little expense of labor as any other root-crop.

As they hold fast to the occupancy of the soil when once planted therein, they should be placed in a lot that you can *permanently spare*.

The ground should be manured and prepared as for corn: List your land 3 by 2 feet, plant a set with 2 eyes in it at each intersection, cover as potato sets are covered, and cultivate as you would a crop of corn.

The stalks if cut up the beginning of October, and dried as corn stalks are, make excellent provender for cattle, if cut into inch or half inch pieces, and would be all the better of being steamed.

Root-Culture.

Appreciating, as we do very highly, the root-culture as a part of the system of every well regulated, and well managed farm, we take this early occasion to call the attention of our readers to the propriety of putting in a few acres with the following roots, as succulent food for their stock next winter, viz:—*Mangel Wurtzel, Sugar Beet, Carrots and Parsnips.*

These all form excellent succulent od for all kinds of cattle, while the carrots cut and mixed with chopt hay or straw, if given onor twice a week, instead of grain to horses, exts a most healthful influence upon them—if they beide-bound, it will loosen it, besides operating favably upon their hair, wind, and bowels, so thawhile more grain may be sold, the condition of th horses will be bettered. A peck of chopt carrots nd an equal quantity of cut straw or hay, make anxcellent feed for a horse.

Now let us cast an eye towards thmilch cows. If you desire the milch cows to give generous sup of good milk, you must certainly prode them with succulent food, as it is impossible to pect them to do this while fed upon the ordinary lg food which they usually receive on most farm Any of the roots named, if cut up fine, and med with chopt hay or straw in the proportion of a ck of each, or a peck of the roots and half a bushof the cut hay or straw, given morning and night in addition to their usual allowance of long provider, will keep your cows in good condition and finhealth through the winter and spring, and advantageously encourage them to secrete milk. Roots ould always be mixed with cut hay or straw, whened out.

As to the manure.—Ten loads of ll rotted dung, mixed with 10 loads of marsh mud, iver mud, creek mud, or wood-mould, will grow a acre of either of the roots—so also, will 200 lbs. of eruvian Guano.

Product per acre.—On an acre of roperly manured, properly prepared land, each of he above named roots, if properly cultivated, will ield 500 bushels to a certainty. Some have yielde more than twice that quantity, but as we like to spk in moderation, and hold out no sanguine hopes, e have placed the product at five hundred bushels pr acre.

Time of drilling in the seed.—s near the first of April as possible.

Fences.

Examine all your fences, and have every panel made stock-proof.

Bars and Gate.

Have all your bars substitutd by a well hung light gate—in one year you wil save, in *time*, all that the change may cost you.

Fence-sides and Cgners.

Have every bush, bramble, shub and briar, eradicated from the entire line of yourfences. This done, eradicate all that may be growing in and about your fields.

Implements and Tools.

Carefully over-haul everything of this sort on your place, and have all necessary repairs forthwith made, so that, when needed, every implement and tool you own may be ready for work.

Pitching Crops—Manure.

Graduate your crops according to your force, means of cultivation, and manuring resources. *It is a losing game to put in more acres than you can manure, thoroughly prepare, and tend well.* Better, much better, would it be for you, to detach a portion of your hands and a team, in the collection of materials to form manure for next year's use.

Hauling out Manure.

Get your manure early in place, and when thr, don't let it waste its riches on the air. Bere removal it should be mixed with plaster, or pulverized charcoal. 1 bushel of plaster, or 10 ushels of pulverized charcoal is the right quantity to mix with every 20 two-horse loads of manure, which would increase its value greatly.

Barley.

This grain should be sown as soon as the frost is out of the ground, and the earth sufficiently warm to cause the germination of the seed. Two bushels per acre is the usual quantity seeded, though some sow 3 or 4 bushels. Good wheat-land, is the soil for barley.

Orchards.

If you did not do so last fall, go at once into your orchard, and cut off all the *dead limbs*, and such small branches as cross each other and shut out the light. In cutting off the dead limbs, cut into the sound wood, smooth the surface of the wound with a drawing-knife, and paint over the surface of the wound with a mixture made over a slow fire comprised of equal parts of tar, rosin, and bees wax, which must be well stirred while being melted.—This done paint the bodies of the trees and limbs as far up as you can reach with a mixture formed in the following manner: Stir thoroughly together, 1 *gallon of soft-soap*, 1 *lb. flour of sulphur, and* 1 *qt. of salt.*

If your orchard has not been recently manured, give it a dressing comprised of 4 parts of mould from the woods, or ditch scrapings; 2 parts stable or barn-yard manure; 2 parts ashes; 2 bushels of bone-dust. Make the whole into compost, shovel it over, and sow on every acre of your orchard 10 or 15 two-horse loads, plough the whole in 2 inches deep—not deeper—making the ploughman avoid going so near the trees as to injure them.

When your trees come into bloom, have ashes or lime dusted over them early in the morning when wet with the dew.

Milch Cows.

Treat these as we advised last month.

In-Calf Cows.

These should be treated as we recommended last month.

Young Stock

Our advice of last month should be pursued this.

Working Horses, Mules, Oxen.

As these will be called upon for increased labor, they must receive more attention and care.

Sheep, and In-Lamb Ewes.

As this is a trying month upon these animals they should receive increased attention. If confined in a yard, supply them with pine boughs to browse upon.

Breeding Sows.

Give these plenty of fresh water daily, and slop them three times a day. Always keep them supplied with charcoal, rotten wood and ashes.

Store-Hogs.

Treat these as recommended last month.

Poultry.

Clean out their houses and nests, white-wash their houses outside as well as in—give them plenty of food and fresh water, not forgetting lime, sand, ashes and gravel.

Out-Houses and Cellars.

If these have not been recently cleansed, they should be forthwith throughly cleaned and white-washed.

Shade Trees—Shrubbery.

If your dwelling is not adorned with shade trees

and shrubbery, plant both the beginning of this month.

Tobacco Beds.

Attend to these carefully.

Meadows.

If your meadows are turf-bound, sow thereon, upon each acre, 2 bushels of bonedust, 5 bushels of ashes, and 1 bushel of salt, mixed together, then harrow and roll. Do this within the first ten days of this month, and the increase in your next crop of grass will more than pay for all the trouble and expense, besides which you will feel the benefit of the application for several years.

Ashes, Bones, Woollen Rags, Poultry Dung.

Save all these carefully as they are all rich in the elements of crops.

Urine, Dish-Water, Suds.

Human urine is among the richest of manures, in every pint of it there are all the elements of a pound of wheat. This being the fact, you should not hesitate to save it.

Your dish-water and suds should also be carefully saved. If you will have two hundred loads of marsh-mud, river mud, or wood's-mould, deposited in your barn-yard—and have the urine, dish-water, and soap-suds, deposited thereon, daily, as made, you might in 3 months have that number of loads of the most enriching manure. Have a hogshead on wheels placed near your kitchen, in which cause all the matters named to be poured therein, mix, say 2 lbs. of plaster in each hogshead full of liquor, and have these removed to the compost heap, and there will be neither bad smell, nor material loss of virtue.

WORK IN THE GARDEN.

MARCH.

As this is the beginning of spring, let each and every farmer and planter go to work with a will to make his garden an example to his neighbors—nay the very pattern of the country around, and such a one as will inspire all who may see it, with the ambition to equal if not to excel it. Such ambition is a virtue,—and that it may prevail and spread until every tiller of the earth has a well appointed and well filled and conducted garden, is an aspiration that we shall often offer up, from a conscientious belief that there is no part of a country estate that compared with the space occupied, affords a tithe of the pleasure, comfort and profit, as does a country garden. Conjuring all to do their best worthy of themselves, and we proceed to point out some of those things that should meet attention.

Sowing Seeds.

Select a warm border in your garden, well protected from the north and west, facing the south; manure it heavily, dig the manure in carefully, take small slices, turn them with care so as to cover the manure; give each slice a slap with the back of the spade as you turn each spade-full over, so as to break all the clods. As the spading is being progressed with, have the turned up ground thoroughly raked before it has time to dry: let the raking be thorough and perfect, so that the tilth may be fine.

Next, lay off the border thus prepared into small compartments by pressing the end of a board down from front to rear; then sow the following kinds of seeds—if you have not done so before, viz:—*Early Cabbage*, 4 sorts, *Cauliflower*, *Broccoli*, *Tomato*, *Egg-Plant* and *Lettuce*; rake them very lightly in, and pat down the ground with the back of the spade, so as lightly to compress the earth down upon the seeds, and thereby encourage germination.

When the plants come up, should the earth be dry, have a barrel of horse-dung tea, and give them a gentle watering with it every few days. This tea is made thus: put a bushel of dung into a barrel, fill the barrel up with water, set the barrel in the sun, and after a day or two the tea will be fit to use.—The barrel will bear being filled up three or four times. If the dung should not be at hand, you may water them with a decoction made in the proportion of 1 lb. of guano to 10 gallons of water.

Should the plants appear sickly, or become lousy, you may restore health to them and drive away the vermin by making a preparation thus: put ¼ lb. *Flour of Sulphur* and half a gallon of soot into a bag, put the bag in a barrel and pour thereon three or four gallons of boiling water, when the water thus poured on cool fill the barrel with cold water, set the barrel in the sun, and it will be fit to use in a day or two. Plants thus diseased will be restored to vigor by three or four waterings. The barrel will bear being filled up three or four times.

Early Peas.

These cannot be planted too soon after the frost is out of the ground. Plant, therefore, so soon as from the absence of frost, the ground can be properly spaded up, raked and put in good order. Select a warmly exposed bed, manure it, dig in the manure, rake finely, then draw drills 4 feet wide, 2 or 3 inches deep, drill in your peas tolerably thick, cover them and pat the earth down with the back of a spade or shovel. When the peas are up and a few inches high, give them a dressing with the hoe, raising a small hill and stick them.

To ensure a continuous supply of this most delicious vegetable, drill in a few more rows every ten days during the month.

Plants in Frames.

If you have cabbage and other plants growing in frames, have them aired every good day in the middle of the day. Such plants as you may have growing in hot-beds, if large enough, may be transplanted out in beds in the open air any time after the 20th of the month.

Bunch Beans.

Bunch beans of sorts may be planted about the middle of the month

Radishes.

Prepare a bed and sow radish seed.

Spinach.

Prepare a bed, by manuring, digging and raking and put in a few drills of spinach. The drills to be 12 inches apart, 1 inch deep.

Carrots, Parsnips, Beets.

Select a warmly exposed bed, manure it with well rotted dung, or Peruvian Guano, spade the dung in and rake well; then put in a few rows of these roots for early use. The rows for the carrots 12 inches wide, 1 inch deep—those for the parsnips 24 inches wide, 1 inch deep, and those for the beets 27 inches wide, 1 inch deep. Cover the seeds with a rake, and pat the ground over them with the back of a spade.

Small Salading,

Of all kinds should be sown at intervals of a week, throughout the month.

CELERY.

Prepare a bed on a southern exposed border and sow celery seed.

SIBERIAN KALE.

Prepare a bed by manuring, as we have before advised, and sow a bed, to raise sprouts.

ASPARAGUS.

Dress the old beds of asparagus with rotten dung, ashes, and salt, and set out new beds if you need them early this month. If you desire to sow asparagus seed, it should also be done early this month.

SOWING ONION SEED.

Onion seed should be drilled in early this month.

POT AND MEDICINAL HERBS.

The seeds of these should be sown, or roots planted out early this month.

ARTICHOKES.

As soon as the weather is settled uncover your artichokes.

RED PEPPERS.

Sow the seeds of these on a warmly exposed border.

PLANTING OUT FOR RAISING SEED.

Set out early this month, your cabbages, beets parsnips, carrots and other vegetables that you wish to raise seed from. If you have more than one kind of cabbage, don't place them nearer each other than 100 yards.

EARLY POTATOES.

Get in your early potatoes the moment the frost is out of the ground.

EARLY TURNIPS.

Prepare a bed and sow early turnips as soon as the frost is out of the ground.

HORSE RADISH.

Select a moist bed, manure it freely, dig the manure in a spade and a half deep, rake finely and plant out a bed of this most healthful condimental root.

RHUBARD OR PIE PLANT.

Now is the time to get out the plants, or sow the seed of rhubarb.

GARDEN FRUIT TREES.

If these need it, prune them, and treat them as advised for trees in the orchard.

FRUIT TREES AND FLOWERING SHRUBS.

These should be set out early this month.

GOOSEBERRIES AND CURRANTS.

Prune these the beginning of the month, and dig in some well rotted manure around the roots, and dust the surface with ashes.

New plantations should be made early,—and cuttings set out as early as possible.

RASPBERRIES.

Prune and tie up your raspberry vines early, and if not done last fall, dig in some well rotted manure around the roots, taking care not to injure them.

STRAWBERRIES.

If your strawberry bed has not already been cleaned and dressed with some well rotted manure, clean the beds and treat them to a dressing at once: after digging the manure in between the rows spread either straw or tan thereon, then strew ashes over the bed.

In times of drought water freely. When in flower the rose of the watering pot must be carefully held down close to the ground, so as not to wet the flowers, and you cannot fail to be rewarded by an abundant yield of fruit to reward your attention and care.

PREMIUM ESSAY
ON
THE FARM-HORSE.

Awarded by a Committee of the South-western Agricultural and Mechanical Association, for the premium offered by the Louisville Journal.

The Horse, that noble quadruped that contributes so largely to the interests, welfare and advancement of man, well deserves his attentive consideration and study. The lines of distinction between the different races of the horse are as strongly marked as are those between the different races or castes of men; and their adaptation to the varied purposes and pursuits of man is as variant and as much a matter of choice as is the selection between the different races of men, for the ordinary and multiform places, operations, and performances in the ecomomy of civilized society.

While, then, the different races of the Horse demand our contemplation and study, the special anatomical conformation, physiological character, and mental constitution of the horse are subjects pre-eminently worthy the investigation.

Three distinct races of the horse have been prominently before the people of Kentucky for many years—with many times multiplied combinations of each, and, among the compounds or mongrels of each, many, very many noble specimens of the horse have been presented, which were high in style and elegant in all the attributes of excellence for service of one kind or another, but not uniformly adapted to the one cycle of service now prominently before us.

For the best Kentucky farm-horse—the one under all circumstances best calculated to meet all the requirements of the Kentucky farmer, or of the Southwestern farmer—I unhesitatingly reject all three of the distinct races that have been introduced. To wit: The Thorough Blood horse, the Flanders (commonly known as the English or Liverpool draft or dray horse,) and a cross of the Norman or French horse with the Indian pony, known under the more familiar "soubriquet" of the Canadian horse. To best fulfil the demands of farm service, I would not select the full blood of either strain, or race, for, in part, the following reasons: To begin with the latter, he is too small, and obstinate withal, to ever become a favorite Kentucky farm horse. He has not weight and strength enough to stand the toil of plowing when that potent implement of farm management is put to its proper depth into the subsoil. That some of this strain are good travellers in light harness is true, and that some of their crosses are fleet and well suited to the road, on short drives, is equally true, but they never can stand high in this country as farm nags. The race with all its crosses, falls immeasurably below the true picture of a thorough farm-horse. They have fallen so far below what was expected of them on their earlier introduction into the country, from the loud and lengthy laudations of them as saddle nags, that many persons, now after impartial trials, have assigned to them their place high up in the list of "Hum Bugs." And I will only say further, that, were I to decide to take into service on my farm an animal or animals, possessing the qualities that so strongly characterize this strain of horses, to wit: self-will, hard mouthed, and "stiff necked," I should give great preference to the mule, as in all respects his superior.

Of the Flanders or "English draft horse" the united testimony of all farmers is, that he is too large. He is certainly above size for the operations of tilling crops and for general farm service; while his great size and strength, combined with his tractable disposition, render him a desirable animal for many purposes in the economy of man.

The thorough blood horse—the courser, the one with stately step and lofty mien—that walks as though he disdained the earth and was fully conscious of his own superiority, whose eyes sparkle with a lustre, a fire, and energy peculiarly their own—an animal, indeed, in his own person the admiration of the multitude, the pride and delight of a State or nation—he holds the place among horses that the eagle holds among birds. He has fire and spirit enough for them all, and is, indeed, a noble, a majestic animal, and eminently worthy of our confidence, esteem, and consideration; but in person and qualities of disposition he is too highly *wrought*, too *finely finished* to meet the demands of the farmer. He is wanting in weight and has too much "metal" for a farm horse, especially in a slave State, aye, in any State, for he is not the horse to drudge at the plow, harrow, wagon, and cart. While his strength and powers of endurance are infinitely above that which his size and general appearance would authorize us to expect, yet his weight is insufficient to capacitate him for the long continued, heavy dead drafts in farm operations; therefore I object unconditionally to the attempt to wrest from its legitimate course this plain index of nature by forcing the thorough-bred horse to take his position as one for general farm service—a place that nature never assigned him.

For a horse to be well suited to general farm purposes he should possess, as primary considerations, two qualities, to-wit: weight and action.—These, properly combined, are scarcely to be found in the full bloods of either race. (It is worthy of remark that a race from England was formerly *partially* introduced into this country that seemed to fill the measure of the farm horse very well, called the "Cleveland Bay;" but their introduction into this country was very limited, and they are now so nearly extinct in Europe that a series of years would be requisite to bring them in to general use under the most judicious and careful course of breeding; hence I pass them without further notice, because they are not within our reach.)

The Flanders horse, though in many instances possessed of astonishing action, when we take into consideration his size and general conformation, is too large for farm service, as he occupies more room than can properly be assigned to a farm horse, and weighs more than is needed for most farm labor. A model farm horse should weigh twelve to fifteen hundred pounds, and should be 15 hands 3 inches to 16 hands high. This stature and weight, properly proportioned, will render the horse capable of performing successfully any of the demands on a farm when combined with ordinary action.

The "blood" horse is generally under this standard, while he combines too much spirit and action; while, on the other hand, the Flanders horse is always above the standard in size and weight, and does not combine spirit and action to the extent often desired. Hence the cross or crosses between these two races or strains of horses constitute my choice for farm purposes.

As stallions of the race of English draft-horses have been introduced in this country, to the exclusion of mares of the same race, we have to breed our "blooded" mares to the large stallions, a cross, by-the-by, to which I confess a partiality, rather than the reverse, and which often results in a produce still above the size desired for farm use; these then, bred with the same view, give a race of one-fourth Flanders and three-fourth American "blood," and of which I have seen more uniformly a stock properly bred for farm labor than any other cross. The get of four of those horses have come under my notice, half and quarter bloods, and I have no hesitation in saying that they constitute a class of farm-horses superior to any I have seen. The half-bloods from common mares are often above size, but the quarter-bloods from fine blooded mares are uniformly animals of fine size and form, and possessed of elegant action and sprightliness. Indeed they make first class carriage-horses, when taken from the drudgery of the farm.

I venture the assertion, that at this day, more first rate farm nags, the offspring of Hercules, Gilbert, Broadtread, and Cobham, can be found in Kentucky, than from any other four stallions that ever did in the same length of time produce in the State, and I will here add, without the bias of self interest, that, among the four, the produce of Gilbert are pre-eminent. At every agricultural fair held in the State for years past, the colts from one or more of these horses have taken the premiums as draft horses, and they have generally been the half-bloods, while the quarter-bloods have taken not a few premiums. That they are horses of great power and durability is now no longer disputed by any who have been observant of them, when confined to close farm-labor, while many, very many of them, both half and quarter-bloods, are first class roadsters.

They are peculiarly fitted for farm-work in Kentucky at the present day, inasmuch as our State is based principally on limestone, which is thickly overlaid by firm clay subsoils, which needs to be penetrated and disintegrated by the plow, a process that heretofore has been much neglected, greatly to the detriment of Kentucky farming.—This cross gives us a class of horses with sufficient stamina to sink the plow deeper than has heretofore been done; while we have been propagating a smaller class of horses only capable of "skimming" the surface of our fields, the true interest of the farmer and State demanded a much greater depth. I will here state that the farmers of Jefferson and adjoining counties have now a chance to make a cross not heretofore in their power, between their well-bred mares and a horse sired by a full-blooded Flanders horse, and out of a full-blood "Cleveland bay" mare. I allude to the stallion "Gray Wallis," recently purchased by our enterprising and public spirited fellow citizen, Dr. U. E. Ewing, of Louisville. The horse "Gray Wallis" is a noble specimen of that compound, is a horse of immense size, of high form, and in action and gait surpasses any horse of that caste that has been introduced into this country. The horse is now, I understand, permanently located in our county, and promises to be a great acquisition to the farming interests of this section.

In the selection of a stallion for the propagation of farm-stock, great and particular attention should be paid to his eyes, and if they are constitutional-

ly weak, or in any respect imperfect or deficient, he should be avoided, for the good and sufficient reason that constitutional defects in these essential and all-important organs are very liable to be transmitted by the sire to his progeny, and let his other qualities and characteristics be what they may, if combined with blindness, he is unfit for service, and is rather a tax and burden on the hands of his owner than a source of profit.

That vast number of horses are deprived of their sight by injudicious management and mal-treatment, which were constitutionally good, is not and cannot be denied, but these facts do not lessen the importance attaching to the selection of horses for breeding purposes at all, but should rather prompt to stricter investigations on this point, in order to be the more surely fortified against this calamity in the horse.

The selection of the stallion from which to breed should be made and the mare bred early in the season, before the weather becomes very warm, and the various kinds of flies become troublesome; and, in order to insure the desired results, she should be kept on limited portions of dry, but sound, and wholesome food for several days preceding as well as succeeding her connection with the horse. She should be kept quiet, mainly separated from other stock, and required to perform, if any, but very light work. After she is in foal, she should be allowed to pasture on any of the cultivated grasses; should be regularly salted and fully supplied with good pure water. She should be sheltered from all inclemencies of weather, and, while she may be required to perform some service, she should not be pressed into any kind of heavy and laborious work during the entire period of gestation. I am aware of the fact that most farmers absolutely need the services of their mares during the seasons for pitching and cultivating their crops, and therefore disposed to grant them more of it than the best interests of their colts would allow were the perfection and elegance of the colt or colts kept as a single idea before the mind. While, therefore, I sacrifice to some extent these requisite qualities in the offspring and cede to the owner the privilege to work his mare on his farm while she is in foal, I would earnestly entreat him to let her toil be as light as possible, and to give her a good supply of nourishing and wholesome food while she is subjected to labor, and to spare her on all possible occasions when her services can be dispensed with. It is certainly true, that the most of farm mares labor in the plow, wagon, cart, and harrow during the week and often carry their owners, with their families, to church on Sunday during the whole period of gestation, and yet produce and sustain their young; but it is not by any means demonstrated that the interest of the owner is enhanced by the incessant and continuous toil of his faithful and otherwise productive brood mares. This course of treatment is regarded and pursued as a *necessity*, and serves at the end of the year to place a handsome sum on the *profit* page; but were the matter tested strictly for a series of years, and an accurate account kept of the injuries inflicted on the dam, the number of colts lost, sacrificed in this way, the impaired faculties of those that live, the detriment in form, size, action, sprightliness, and general usefulness—all summed up at a moderate price, it would authorize a sum for the page of loss that would greatly surprise many of our economical farmers. While the necessity of the farm may, and indeed does, demand the services of the brood mare, her labor should be rendered as light as possible, and she should be treated well in all respects; while to the farmer who is breeding and rearing stock with a view to its greatest perfection, we would unhesitatingly urge that the mare should not be required to do any kind of hard labor, either during the period of gestation or location, but that she be allowed to take her ease on good pasture, well supplied with all the necessaries to keep her in full health and vigor, that her best and entire energies may be expended in the production and rearing of her offspring.

Many farmers defer breeding their mares until an advanced stage of the season, in order to delay the period of foaling until the grass, clover, &c., are sufficiently up to supply pasture for the mare to supply herself, and also the wants of her colt, as the expense of grain feeding a mare that had nothing to do but to *raise a colt and work some on the farm would be, in their esteem, ruinous.* This course of procedure is in direct conflict with the farmer's true interest; for, in the first place, his mare is much less apt to get in foal than if she were bred early, and the colt is not half as apt to live when brought late as when foaled early; and, in addition to these objections, the colt is infinitely more liable to that distressing and often fatal affection called the "scours" when foaled late and the dam allowed to feed freely, and at will, on green grass. The dam should be fed on grain, after the first few days, freely for several weeks after her foal is dropped, before she is put to full pasturage, in order to save the colt from the consequences of diarrhea, which is always injurious and retards the growth and development, and often proves fatal. Let me here repeat what I have said before: That, to succeed in producing and raising any kind of horse, or a horse designed for any particular purpose, the best plan is to breed early, and allow the mare to live freely and easily while she both carries and nurses her young, and the owner will generally be amply remunerated for the loss of her labor by the superiority and elegance of her produce.

When the colt is dropped, it, with its dam, should be kept apart fron other stock, in a dry place, and the dam should be allowed "chop" feed, composed of sheaf oats cut and mixed with a small quantity of rye meal, or "shorts," from a merchant mill, and allowed plentifully of pure water—allowed to be in the open air and sunshine by day and sheltered at night. The colt should be assisted, if need be, to take hold of the udder of the dam and draw nourishment therefrom as early as practicable, which should be continued faithfully until it is sufficiently strong to assist itself in this process, in order thereby to both stimulate the mammaillary glands to the proper performance of their functions and to keep the lactiferous vessels emptied from time to time, that all undue excitement, as inflammation, hard engorgements, and indurations of those organs of the dam may be obviated, and a good supply of healthful and nutritive milk may be afforded.

After the "milk secretions" is well established in the dam, and the febrile excitement dependent thereon is passed, the mare should have a liberal supply of grain and hay given to her at regular intervals, while she is kept in a separate inclosure, supplied with water and a good shelter, and entire-

ly separate from all other kinds of stock, that the young may be supplied at will, at the promptings of its own appetite, with its natural and legitimate nourishment, which it will take in small quantities and at oft repeated intervals, while a great portion of its time will be spent in a recumbent position, stretched at full length on the ground, and in the sunshine in the pleasant season of spring, in profound sleep. The colt thus complies very strictly with the plainest indices of nature while young; and, its bony system undeveloped, by lying down, instead of standing on its legs mainly, while the earthy and mineral composites, necessary to the completion of the ossific process are yet wanting and in process of deposition and consolidation, and it instinctively takes exercise enough for all the wants of regular, proportionate, and healthful development, by its playful gambols and frolics around its dam, when left to the promptings of its own inclination.

In view of these physiological instincts, what incalculable injury must be inflicted upon the young offspring of the mare that is subjected to hard daily labor, whether the young be permitted to follow her in her rounds of toil, or be pent up by itself and only permitted to see its mother at occasional and badly timed intervals?

When the colt is six months old, or six to eight, it should be separated from the dam, and they should be out of sight, and if practicable, out of hearing of each other, and they should be thus kept, until the process of weaning is accomplished; when once commenced, they should not be allowed to come together at all, until the colt gives up its desire for the dam, nor till the secretion of milk is fully suspended. The colt should be kept on good pasture, well supplied with shade, good water, and should have salt given him at regular periods, and as the cold weather approaches, it should be housed, and fed on suitable portions of oats, Indian meal or even shelled corn (though this latter, for good reasons, should be allowed sparingly,) which course should be followed throughout the winter season. No colt should be allowed to stand out without shelter during the cold and inclement months of winter, but should be kept at night and during the rainy, steady, and sleety weather in a warm stable.

The practice of throwing ears of corn to a colt to feed upon is highly injudicious, and is very frequently greatly detrimental to it, by causing irritation and enlargement of its gums, called lampas, and rendering it unable to feed properly on any kind of food, not only so, but it often causes disease in the roots of the moler or grinding teeth, by the undue pressure exerted on them, by the hard kernels of the corn, while they, together with their investments, both membraneous and bony, remain but partially organized, and are in course or process of development. The disease called big head is supposed by many persons to be induced by this cause; and numberless are the cases of enlargement of the lower as well as upper maxillary bones, along the course of the *areolar* portions caused by the undue irritation to which they were subjected by masticating the hard grains of corn, while they were young and those parts yet feeble and imperfect.

One of the best, if not the best, articles of winter food for horses of all ages is the corn, cob, and husk, with a small quantity of sheaf oats, crushed together and fed to them in a dry state; and while it constitutes one of the best preparations that can be given in point of adaptation to the wants of the animal, it is at the same time one of the most economical preparations for that purpose at the command of the Western farmer; and its excellence as food for young stock will be denied by no one who will give it a fair trial. When the winter is past and the grass of the fields is sufficiently grown, the colt should be put to pasture, where he can secure shade, a full supply of good water, and he need give his owner but little trouble beyond that of giving his stated allowance of salt until the approach of winter again; at the approach of which he should be housed or sheltered, and treated as he was during the preceding winter, with an increased quantity of food proportionate to his advanced age and consequent demand for an increase in food.

At the end of this winter our colt begins to show and feel that he is a horse, and he should be gelded carefully and put to pasture, and treated in all respects as directed the preceding year, only varied by a small addition to his supplies in the feeding season, as his increasing wants may demand.—When the succeeding spring arrives, we will find by this course of treatment that the colt, being now three years old, is well developed in form, size and general proportions, and is possessed of fine sprightliness and vigor; but we must not suppose, because of these, that he is matured and ready for any service that we may require—far from it! He is just now at the right age to be ruined and rendered comparatively useless by being put to labor. Instead of "breaking him to work," put him to pasture again, and as the season advances take him up occasionally and learn him to be led by the halter, and be sure to treat him kindly; learn him also to stand when tied by the halter, rub him, and gentle him by convincing him that you do not intend to hurt him—that you are his friend; and in this way you will soon win his attachment to you, and so inspire his confidence that he will readily comply with your wishes when he can understand them. As the season advances, the bridle may be put on him and he may be mounted by a boy and rode for a short time; and this may be frequently repeated, but he never should be required to carry his rider long at a time, for fear of turning his spinal column out of shape, causing him to dip, and rendering him, in common parlance, "sway-backed;" but he should be rode enough to teach him the use of the bridle, to stand while his rider mounts, dismounts, &c., and as his age advances his rides may be gradually prolonged, until he attains to the age of four years, at which time he may be put to the gears and required to do moderate work, to the extent of completely breaking and gentling him to it. But he should not even at this age be put to regular daily labor on the farm and be required to fill the place of a farm-horse at the various kinds of drudgery. Better by far that the owner lose his labor comparatively, or even entirely, for a year, while at this age, and gain six to ten years of his services in after life, than to extort it of him while young and be deprived of the greater portion in after years. No one cause has operated more generally to the deterioration of the farm stock of the Western States than that of breaking and putting to hard and constant labor while yet too young. And to this cause chiefly may be ascribed the fact that a great majority of farm-horses in the West are failing at ten and twelve years of age and are superannuated at six-

teen and eighteen, when, by proper treatment, they would but be in their prime at those ages. When a colt is put to farm labor at three years old and kept at it constantly from that time onward, he will render less service between the ages of fifteen and twenty years than the one that is not required to take his place as a regular farm-horse until he is five years old will, when he attains the age of twenty-five to thirty years of age. Hence a just regard to economy should cause the farmer to waive the services of his colt and exact and realize it in those of his aged horse.

When our colt has attained to five years of age and has been by degrees broke by the halter to the bridle and saddle and to the gear, enough to familiarize him to each, he may be required to fill a place on the farm from that time onward, and with due attention, he will do his owner good service, in any capacity, as a farm-horse.

The horse, when at work, should not be allowed to go to pasture but very little, if at all, but should be amply supplied in winter with warm and clean apartments, with good sound corn or oats and hay (and that of red clover if it can be had) and clean straw or saw-dust for bedding; and then his skin, from head to foot, should be kept clean by frequent curryings and rubbing.

His feed in the trough should be frequently changed. To feed him constantly on one kind of grain is impolitic, because his appetite, like that of man, requires a change of diet, and this is easily secured by giving him oats at one time, corn at another, the "crushed" food at another, it with a portion of oil cake at a fourth, corn-meal with sheaf-oats cut and fed dry at a fifth, and so on, so that his appetite will all the while be sustained, and his health and strength be maintained while he performs his daily labor.

In warm weather the stable should be kept very clean, and should be so constructed as to admit both light and air plentifully. His droppings should be removed frequently, and not be permitted to accumulate in his stall, as they engender heat, and the ammoniacal eliminations from them often induce opthalmia, which should always be avoided if possible, as impaired vision is very likely to result from it. His food should consist more of "chop" in warm than cold weather. Sheaf-oats cut and mixed with rye or barley meal, all well moistened, is an excellent summer feed for a farm horse. Rye straw cut and mixed with "shipstuff" from the flouring mill makes a good change; and clean oats also is preferable in warm weather to Indian corn in great quantity in any of its preparations, as it contains so much more oleaginous or carbonic matter than the other grains or preparations spoken of that it causes more animal heat than they, which, in the summer time, is necessarialy oppressive, and should therefore be regulated as far as practicable.

Cleanliness of the stable as well as the person of the horse cannot be too forcibly impressed upon any one who owns and uses him, as attention to or neglect of these points will greatly influence the health and consequently the durability and efficiency of the animal.

In the latter months of summer and early autumn the animal should be closely attended to, and a few minutes each day should be appropriated to the removal of the eggs of the *oetrus equi*, a species of the gad-fly, from the fore legs, sides, &c., on which they are deposited. It is a known fact that these eggs are taken into the stomach of the horse, that they there produce the bot, which itself is but the chrysalis state of the oestrus equi, but which, contrary to the teachings of Mr. Youatt and others on that subject, are in many instances highly injurious, and not unfrequently destructive, to the life of the horse. By a little attention given to this point, the "bots" may be obviated, and, as *prevention* is always better than *cure*, it should by no means be neglected. If the attendant of the horse will keep a cloth at hand slightly charged with oil, and will pass it over the hair on the fore legs and sides of his horse each day, the eggs will not likely adhere to them, or if they do adhere, by passing the cloth thus oiled over them a few times they are easily detached by the back of a pocket-knife blade; and, a little precaution bestowed on this point, the bots will never trouble the horse.

It is strange that any man versed in the history and diseases of the horse should ever arrive at the conclusion that the bot is not injurious to him, when many, very many instances of perforation of the several tunics of the stomach have occurred. Several instances of the kind have fallen under my own observation, and are known to many to exist not unfrequently. When the coats of the stomach are perforated, and its contents permitted to escape, death is the inevitable result, as peritoneal inflammation is quickly induced thereby, and is utterly incurable, because of the continual presence of the exciting cause. Whether the bot perforates the walls of that organ by direct action upon it, or induces it by irritation and consequent ulceration, is a question of no moment, as the fact is abundantly sustained that they cause the perforations; and, whether it occur by direct or indirect agency on their part, the consequences are the same, and the speedy death of the horse is the finale of it. The history of the oestrus equi is a singular one, but we have not time or space here to follow it; but I will say that the uneasiness and disturbance of the horse at its approach are a sufficient index to the fact that it is not his friend—that it is a source of great annoyance to him, and that he would always evade it if in his power; and, while some writers may assert their innocence and acquit them of censure as being injurious to the horse, I would earnestly urge every farmer to guard his horse against their invasions by following strictly the suggestions above.

There are a few other affections of the horse, so common and so fatal if not promptly met, that I wish to name them, and thereby call attention to them, as their treatment enters largely into the general management of the farm-horse. Those diseases, are pneumonia, or inflammation of the lungs, commonly denominated lung-fever, which now annually destroys a great many horses, and the other is peritonitis, or inflammation of the lining membrane of the abdomen. This latter affection kills hundreds of horses without being suspected, or even known at all. It is an active inflammation, but is almost universally regarded as cholic, as the symptoms are very nearly the same as those that characterize cholic.

In both affections great danger is at hand, and unless prompt and decisive means for their arrest be employed, a large majority of cases of either disease will prove fatal. Without at present attempting to discuss their pathology, or to detail the symptoms characterizing either, as they are

all well laid down by the various writers on the diseases of the horse, I wish to urge the claims of the lancet as the chief remedy in each affection, but, to be useful to its greatest extent, it must be used at once in the outset of the attack, and should in all cases be carried to a greater extent than is generally done. In order to arrest at once the march of inflammation, a few openings should be made in the jugular vein, and the blood allowed to flow until the system of the horse is sensibly impressed by it, which will be evidenced by approaching syncope, or fainting. Blood should be drawn without regard to quantity, until this effect is visible, and, if the horse even faints and falls to the ground, his chance for life is in many instances only the better.

After bleeding, he should be kept in a warm and dry stable—should be rubbed freely to keep his circulation equalized, and, in peritonitis, he should be required to swallow a heavy opiate, and his sides and abdomen should be blistered, or at least freely bathed with spirits of turpentine, and blankets kept constantly on him. After the bleeding in pneumonia, act gently upon the bowels by enamata; if fever be high, give him at intervals tartarized antimony and digitalis combined.—Shave the hair from his side or sides, and blister deeply at once with the following compound:—R. Pulv. Cantharides; Sps. Turpentine; Ol Oreganum, ea zi; Alcohol, oj. Apply this freely as an embrocation. Keep his legs warm by friction, and his body warm by blankets. If his pulse fail, give him 60 grain doses of quinine until they are restored. These principles of treatment, actively and energetically employed, will save many valuable horses from death by these diseases, both of which have become so common that it behooves the owners of horses to understand them, and to be able to apply the remedies promptly to their relief.

After this much written on the subject of a horse for farm labor, his treatment, &c., and notwithstanding his elegance and the almost universal admiration lavished upon him, and his just and unquestionable right to it all, yet, as an animal for the various orders of farm labor, especially in a slave State, the *mule is the farm-nag*.

U. S. AGRICULTURAL SOCIETY.

We would very much like to give ample details of the proceedings of the annual meeting of this society, but at this season, we have so many pressing demands upon our time and space, that we have to compress them into the smallest compass. We borrow our synopsis from the Country Gentleman:—

On taking the chair, President Wilder called the Society to order, and proceeded to read his annual address. He spoke in the highest terms of the Exhibition last Fall at Philadelphia, and mentioned as among its important features the specimens of syrup exhibited from the Chinese sugar-cane, and of native wines from the vineyards of Ohio, Missouri and California. He recommended the institution of a grand national implement trial during the year, referred to the propositions received from different places for the next Show, and urged the establishment of a State Department of Agriculture, with a cabinet officer at its head.

The Treasurer's report was next read, of which we have no details, but understand that it represented the actual cash receipts of the year from all sources at about $41,000—the disbursements of premiums and expenses about $40,000, and the balance in the hands of the Treasurer—deducting sundry matters still unpaid, and adding previous amounts on hand—$2,500, or thereabouts.

Mr. Calvert of Maryland, made some remarks in relation to the heavy expenses of the Society's exhibitions, and the extent of the competition at them as compared with that drawn out by the shows of State Societies,—contending that funds should be accumulated for higher purposes, and that a permanent Secretary should be appointed at such a salary as would enable him to devote his undivided attention to the promotion of the objects in view. Mr. C. was followed by others in an animated discussion of the subject.

Resolutions were adopted in favor of the purchase of the Mt. Vernon farm and the establishment on it of an Agricultural College by the United States Government, and a committee appointed to confer with the owner in respect to terms, etc.—A circular in relation to the collection of Agricultural statistics, with a table in blank annexed, was drawn up by a committee, and ordered to be transmitted to Governors of States and Territories—asking their co-operation with the general government in procuring the requisite information. George Peabody was voted an honorary member, and, we believe, requested to represent the society at the shows of similar bodies in England and France.—The Committee on the Trial of Implements reported in favor of holding it in conjunction with the Louisville Meeting—exception being made in respect to the test of mowers and reapers, for which provision is recommended at a more appropriate season of the year. Among committees appointed in addition to those already mentioned, was one to memorialize Congress in respect to an Agricultural Department; one to consider the merits and introduction of the Chinese Sugar Cane; one for the discussion of sundry fruits from the Pacific, presented for the purpose by the California State Agricultural Society, and one to inquire into the origin, causes and cure of the prevailing disease among swine, commonly called "Hog Cholera." Addresses were delivered, or papers read by Prof. Webster of Va., C. L. Flint of Mass., Prof. Henry, D. J. Browne, and Dr. Newberry of Washington, Prof. Nash of New York, Mr. Arny of Kansas, and, in conclusion of the proceedings, by Hon. G. W. P. Custis of Va. Votes of thanks to officers and others, and to the Smithsonian Institute for use of their rooms, were passed.

Among the pleasant incidents of the occasion, are mentioned the presence of President Pierce and several distinguished gentlemen during the proceedings, and the call of Mr. Wilder and a number of the members to the "White House."

As before remarked, it was determined that the next annual exhibition should be held at Louisville, Ky. A proposition was adopted urging upon Congress the endowment of an Industrial University in each State and Territory, by a grant of land valued at $500,000. A committee, consisting of Messrs. Corcoran, Custis, Calvert, French and Brown, was appointed to further this object.

TO CORRESPONDENTS.—A communication on the subject of "Renovation of Worn-out Lands, by a Virginia Farmer," of King George's Co. Also one from Chapel District, Talbot Co., Md., on the same subject, are received

DAIRY FARMING.

The Rearing and Feeding of Dairy Stock and the Management of their Produce.

BY RURICOLA.

[Continued from February Farmer.]

Polled Cattle.—Of this variety, the Yorkshire Polled cattle differ very little from the short-horned breeds from the same county.—They are excellent stock for pure-milk dairies, keeping their flesh well while secreting milk, and for that reason are most generally found in the neighborhood of large towns. Of the Polled breed however, the Suffolk Duns are most esteemed for the dairy, yielding abundance of milk of excellent quality, are easily fattened when dry, and attain to very considerable weight. The Galloway Polled breed is neither remarkable for the abundance nor for the quality of their milk. They make, however much flesh, and for this reason are chiefly bred for the shambles.

From this brief sketch of the different varieties of dairy cattle, it will be at once seen that while much depends on the peculiar qualities of the parent stock, it is almost impossible to predicate that under all circumstances and everywhere the same cattle will exhibit the same characteristics. Thus, for instance:—The Galloway polled breeds are notoriously indifferent milkers; but the same breed transported to Norfolk, and fed on the rich pastures of that county, and there known by the name of the *Norfolk Polled Cattle*, yield fair and average quantity of very good milk. As a general rule, however, it may be safely asserted that the *Long-Horned* breed yield a fine-grained meat, and, although in less quantities, a rich description of milk; their hides also are of excellent quality. The *Short-Horned* breed, on the other hand, yield a greater abundance of milk and a large proportion of beef, but of a slightly inferior quality; and these characteristics are more or less shared by the different varieties of *Middle-Horned* and *Polled* cattle.

Of late years, as I have before remarked, the long-horned breeds have been less cultivated; and one reason for this may be found in the fact that they are not popular with the butchers; and notwithstanding their handling for good serviceable beef almost as well as the short-horns, they are consequently not now nearly so saleable. Another reason for the preference thus given to the latter breed may also be found in the tendency of the different agricultural societies to award prizes to the breeders and feeders of animals that fatten early and attain to an immense weight: and in these qualities the short-horns stand unrivalled.—Butchers at the best of times, care little for dairy stock: and although the long-horns fatten well inside, they do not show those points for which an inexperienced dealer looks, and in favour of which the most experienced are most unaccountably prejudiced. As a friend however to the dairy farmer, I would observe that the long-horned breeds will keep longer in milk after calving, and thrive better upon moderate pastures than any other; and by experience I have uniformly found that the milk of a long-horned cow after her seventh calf is quite equal to that of a short-horn cow after her fifth.

I should therefore recommend that the latter be turned off after that period; while the former can be profitably retained until after she has become dry, after having given birth to seven calves. Lord Combermere had so good an opinion of this breed, that he presented his tenants with a long-horned bull, in order to induce them to get back the old milking stock.

As an instance of the profit to be realized by judicious crossing and careful management, I may mention that on the extensive farms of Lord Durham, in the county of Durham, a large number of year-and-a-half West Highland heifers are bought at about 50s. each in autumn; they are crossed next year with a short-horn bull, and the following year, after suckling their calves, which always command a first class price, they are moderately fattened, and sold at about £7. The cross breed are put on good keep, and are either turned out prime fat at three years old, the oxen at that age averaging fifty to sixty stones imperial, which, from the superior quality of the meat, sells at the highest figure per stone; the heifers, when not retained as dairy stock, realizing something less.

SECTION II.—The Cow.

Having mentioned, for the guidance of the farmer, the breeds of cattle which experience enables me particularly to recommend to his notice as best adapted for dairy stock, I shall now proceed to describe the chief points which a milch cow should possess, as well as make some remarks upon the general management to which dairy cattle should be subjected.

Previous to doing so, I would remark, that the farmer, in making his selection from the several varieties of stock to which allusion has been made, should take other circumstances into consideration besides mere purity of breed or blood. He should pay particular regard to the quality of pasture upon his farm, and to the means at his command for procuring a succession of green and root crops. Some lands, from various causes, are incapable of profitably yielding crops of the latter description; while to buy the necessary quantity requires a command of capital which comparatively few farmers possess. Besides also the nature of the soil, the farmer would do well to consider the principal object of his dairy,—namely, whether it be his intention to sell milk, to rear and fatten calves, or to make butter or cheese. If he seeks to obtain a large yield of milk without much regard to its quality, he can hardly select more profitable stock than the old Teeswater or Yorkshire breeds. If, on the other hand, veal be his object, almost any of the various breeds of short-horns will answer his purpose. While for the manufacture of butter or cheese, he cannot certainly do better than select the Ayrshire, Durham, Welsh, or North Devon breeds, or judicious crosses between them. But whatever may be his object, he must bear in mind that his success depends almost entirely on himself. It is useless to expect that any cattle will thrive in a climate or on food to which their constitutions are not suited. The farmer should therefore look out for well bred and suitable stock, from pastures not quite equal to his own; and with careful attention to feeding, cleanliness, and to the other essentials I shall presently mention for keeping cattle in a state of perfect health and comfort, he will at least have the satisfaction of feeling, should he then fail, that he has done all in his power to secure the realization of his plans.

I shall now endeavor to describe the main "points" which milch-kine should possess.

In the first place, the head should be fine and small, with the horns set rather forward on a broad flat forehead, the muzzle tapering, and of a rich black; the nostrils full and moist; the eye bright, prominent, and mild. As a general rule, also, the colour of the head should be harmonious, shading gradually off from the darkest part, across the nose, to the lightest part, under the jowl.—The neck should be rather long, but thickly set in the chest and shoulders; the chest broad and deep, or, in other words, full, to give free play to the heart and lungs; the shoulders rather narrow than otherwise; the back broad and straight, and the haunches also broad; the hips and loins wide apart affording plenty of room, and the thighs inclined to slope gradually towards the elbow; the udder should be large, smooth, and stretching forward; the milk-veins swelling and prominent, and through their whole length equally rounded, handling fleshy and kindly, leaving ample room for expansion; the teats short rather than long, and all pointing outwards. The legs can hardly be too short or small, or the hair too fine and close; the hide a never-failing test of health, should be mellow, rather loose than otherwise, and smooth to the touch.

With respect to colour, no rule can be laid down. The farmers of different counties are all more or less prejudiced in favor of that which predominates in the cattle of their own immediate neighborhood. For many years red was highly esteemed, the cows of that colour being said to produce richer milk than those of other colours.—For my own part, as a matter of taste, I should give the preference to the Strawberry, that is, to mottled red and white, finding them the predominating and favorite colours in Cheshire, Derbyshire, and Leicestershire.

In Johnson's 'Farmers' Encyclopædia' the points of a first rate milch-cow are thus described:—"A milch-cow, good for the pail as long as she is wanted, and then quickly got into marketable condition, should have a long and rather small head; a large-headed cow will seldom fatten or yield much milk. The eye should be bright, yet with a peculiar placidness and quietness of expression; the chaps thin, and the horns small. The neck may be thin towards the head; but it must begin to thicken, and especially when it approaches the shoulder; the dewlap should be small; the breast, if not so wide as in some that have an unusual disposition to fatten, yet should be very far from being narrow, and it should project before the legs; the chine to a certain degree fleshy, and even inclining to fullness; the girth behind the shoulder should be deeper than is usually found in the short-horn; the ribs should be spread out wide, so as to give as globular a form as possible to the carcase, and each should project further than the preceding one, to the very loins. She should be well formed across the hips and on the rump, and with greater length there than the milker generally possesses; or if a little too short, not heavy. If she stands a little long on the legs, it must not be too long. The thighs somewhat thin, with a slight tendency, to crookedness, or being sickle-hammed behind. The tail thick at the upper part, but tapering below; and she should have a mellow hide, and but little coarse hair. Common consent has given to her large milk-veins. A large milk-vein indicates a strongly developed vascular system, one favorable to secretion generally, and to that of the milk amongst the rest. The udder should rather incline to be large in proportion to the size of the animal, but not too large; its skin thin and free from lumps in every part of it; and teats of a moderate size."

A cow should be bought when about to calve, as dealers are then unable to deceive the purchaser or injure the cow by the barbarous practice of *hafting* her, or, in other words, allowing the milk to remain upon the cow for a considerable time before she is brought to market.

"The age of cattle," says Martin Doyle, in the 'Cyclopædia of Practical Husbandry,' "is indicated with unerring certainty by the teeth, to those who have judgment and experience, until the animal reaches the age of six or seven. Until two years old no teeth are cast; at that age two new teeth are cut; at three too more are cut; and in the two succeeding years two in each year: at five the mouth is said to be full, though not completely so until six, because until that period the two corner teeth (the last in renewal) are not perfectly up. The front, or incisor teeth, are those considered, for a full-grown beast has altogether thirty-two teeth." Another mode of ascertaining the age of animals, although by no means so certain as that pointed out by the writer just mentioned, is by counting the rings that annually appear at the root of the horn. These rings, however, in the female animal, are not generally formed until the beast is three years old; but in some cases a ring will immediately appear on the horn of a heifer, no matter her age, when she has taken the bull; and in a barren heifer the horn not unfrequently remains smooth. In the male, these rings seldom appear until the animal is five years old. Independently of which, this test is so easily falsified as to be practically of little value.

SECTION III.—CARE OF STOCK.

It is an old saying, and one which is peculiarly applicable to the subject of which I am now about to treat, that "what is worth having is worth taking care of." There is no worse economy than neglect or indifference to the comfort and health of the animal from which we look for profitable produce. Care and attention will often secure to us all we desire, while the reverse will, nine times out of ten, multiply all the advantages which naturally spring from the possession of the best breed and the command of capital.

At the present day there are two modes of feeding cattle, each of which is undoubtedly deserving of attention. My experience, however, leads me to think that a happy medium between the two extremes is most likely to attain the object which the advocates of either have in view. I allude to the old fashioned *pasturing* of cattle, and to the more modern practice of soiling or *stall-feeding*.

Previous, however, to entering upon any comparison of the respective merits of each of these two modes I wish to say a few words on the *Cow-house*, or Byre, as it is called in the North and in Scotland. No one who has taken the trouble to inquire into, and with his own eyes to inspect, the state of the outbuildings of unfortunately by far the greater number of English homesteads, can have failed to remark the entire absence of anything like economy of arrangement, or the most ordinary attention to the comforts or wants of the animals they are designed to shelter. Doubtless in many parts of England landlords are beginning to see the wis-

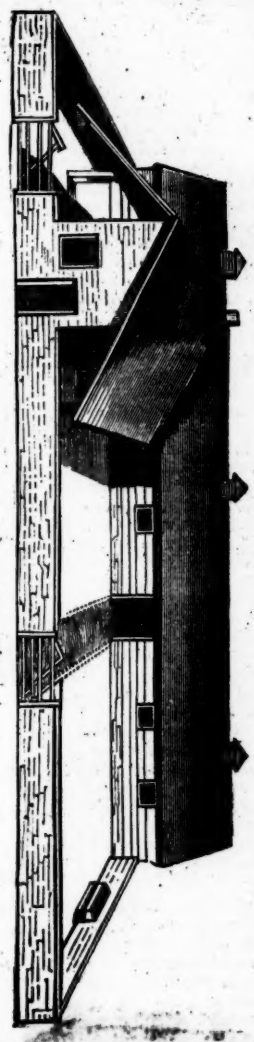
dom of providing their tenants with suitde conveniencies to enable them to profit by theexperiences which many distinguished agriculturists are now daily earning at no inconsiderablecost of time and capital; but much still remains toe done in this respect; and if the present mania nongst a certain class in favour of stall-feeding oes no other good than calling attention to the bsolute necessity for a change in the "local habitatn" of beasts, it will not have proved, irrespective of any other claims which it may have upon the onsideration of the agricultural interest, entirely nproductive of benefit. The great evil howeveto be guarded against, is the tendency in this country to run into extremes. At one moment we se the profoundest disregard manifested to even eomon essentials, and at the next a minute attentio to details and lavish expenditure of money, whih is almost equally productive of harm, or at any ate does no good, because it effectually prevents the less wealthy, and by far the most numerous, cass of farmers from attempting to imitate that, he excellence of which is apparent to them, but whih the cost places beyond their means. From a mee shed, which admits the wind and cold at every coner, and fails each to keep out the scorching heat of noonday sun, we launch into bricks and mortar, Roman tiles, and steam engines, effecting doubt less a change for the better, but only too surely discouraging imitation by erecting models which only one in a thousand can hope to copy.

In the suggestions, therefore, which I shall venture to make on the construction of cow-houses, I shall endeavor to limit my notions of perfection to the means which the majority of farmers in this country may be assumed to possess.

In the first place, then it behoves us to consider the most suitable position for the cow-house, both with respect to the farmer's dwelling and also to the land. Wherever it be placed it should, if possible, have a south aspect, with openings so arranged as to admit the slanting rays of the morning's sun. It should be also well ventilated, and free from anything like damp. As new milk also suffers considerably from being carried any distance, it is always desirable to have the cow-stable as near as possible (regard, of course, being always had to smell) to the dairy; while an easy access from the stable to a dry paddock is beyond all price. And I may here mention that, where the nature of the holding admits, the farm-house, to which the dairy must of necessity be attached, should be as central with reference to the land as possible, so as to prevent the injurious practice of over-driving cattle before milking.

As I have before said, I am opposed to mere stall-feeding, that is, to cattle being always confined and fed in stalls, because it appears to be opposed to nature. I recognize in it however one advantage, and that consists in accumulating a great quantity of manure which would be otherwise lost, and in the facilities afforded perhaps for economizing food to a greater extent than under any other system. But I feel quite certain, also, that a medium course between pasturing and stall-feeding might be adopted, not only with benefit to the health of the animal, but also with advantage to its produce.

In constructing a cow-house, although it is of course always desirable, if the means be at hand, to build it of brick, or some other equally durable material, it is by no means necessary for the health of the animals that it should be so built. Wood houses on a brick foundation are almost as warm as those constructed entirely of brick, and when the interior is well plastered over, are not so subject to damp. Thatch is also preferable to tiles or slate, as admitting of a freer ventilation, and maintaining a greater equality of temperature. There



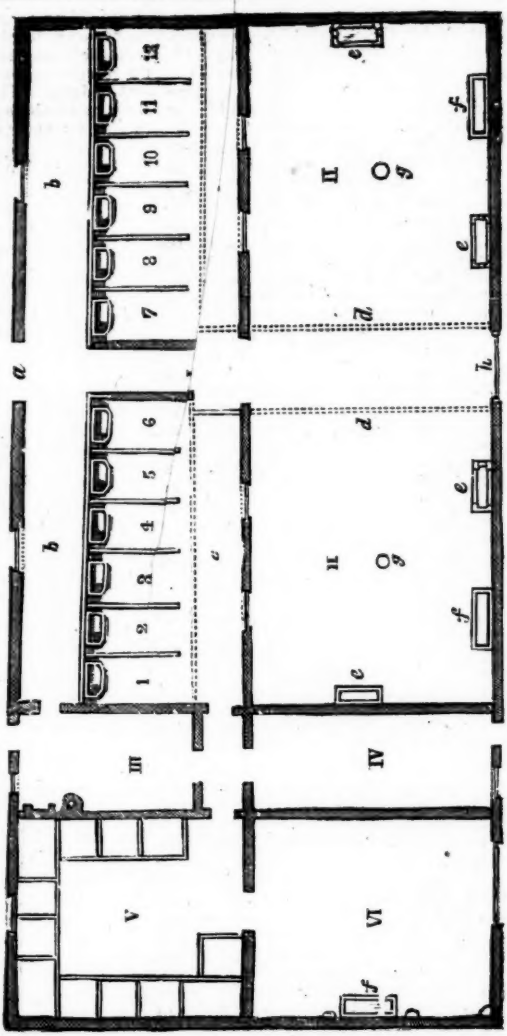
ELEVATION OF COW HOUSE.

should be no loft between the roof and the stable; in fact, the rafters and straw binders should be left exposed; and ventilators for aiding the escape of heated and foul air, as well as for admitting that which is fresh, of the kind recommended in Mr. Stephen's admirable work*, should be built in the roof, at a distance of not more than thirty feet

* 'The Book of the Farm,' by Henry Stephens: vol. i. p. 254.

from each other. The flooring should be of concrete, sloping from the mangers, so as to discharge the liquid manure into a drain, to be carried off to the tank. This flooring should receive a thorough cleansing each time that the cows receive clean litter. In Cheshire, from lack of straw, sand is generally used as litter, and this is then transferred to the heavy clay soils of that county with the manures. Each cow should have a stall, or, in other words, be separated from her neighbor by a wooden partition or open fence about four feet high. In Cheshire they also generally stand two in a stall, which, I think, is a mistake, as in case of disease the healthy animal is liable to be affected. This stall should be always occupied by the same cow, who will then leave and enter it without interfering with any other. It should be at least five feet in breadth and eight feet in length. The manger, which ought to be of stone or wood, should be at least 20 inches from the ground, two feet in width, to allow for the horns of the cow, which are apt to rub up against the sides, and about fifteen inches deep, with a sloping board set on edge, to prevent the food from being tossed, or rather nosed out. The causeway can be either at the back of the cows or in front of the manger; the former is best for milking and the latter for feeding, as it may be made broad enough for a hay-barrow loaded with food to pass along, with an attendant serving each animal on either side of him (if it be a double-stalled stable) as he passes in front of them. Where space is no object, there ought always to be five or six feet between the wall and the end of the stall, to allow the milk-maid to pass and repass with her milking utensils. On the outside of the manger, on the stall side (see Fig. of trough) should run a horizontal rod of iron, about one inch and a half in diameter and three feet in length, along which an iron ring should loosely run; to this a chain about twenty inches long should be rivetted, at the end of which there should be another ring, through which to pass the leather collar or chain, according to the farmer's fancy, which is to go round the neck of the cow. I prefer this mode to the rings running up perpendicular stakes, as taking less room and being equally convenient. It is also the most easy form of binder to the animal, as it enables it to turn its head in any direction, to lick itself, to lie down, or stand back from the manger at pleasure. The cow-house should also be well lighted, and the windows so arranged as to turn as on an axle or pivots, intersecting the breadth of the window at its middle, a notched latch enabling it to be opened to any distance*. The door for the entrance and exit of the cows should be either in the middle of the sides or at the back or front, opening outwards, for convenience sake, into a small straw-yard, partially shaded or covered, in which to air the cows when

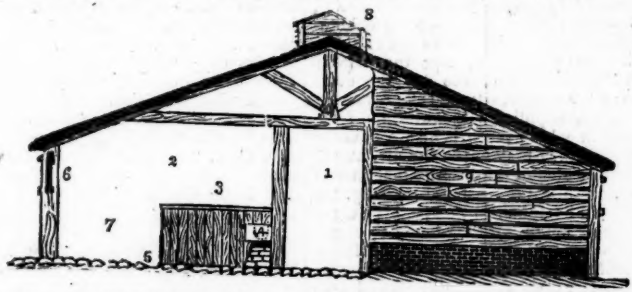
GROUND PLAN OF COW HOUSE.



a the entrance—*b* the feeding passage—*c* the milking passage—*d* the drains—*e* the hay and root trough—*f* the water tank—*g* the rubbing-posts—*h* the entrance from the field.
I the entrance passage—II the open yard—III the boiling house—IV the root-store—V the calf-pens—VI the airing-yard for calves. 1 to 12 cow-stalls.

*Windows, something like the cooling sashes of a brewery, or like ventilators, are also to be recommended.

SIDE FRONT OF A DOUBLE-STALLED COW HOUSE, SHOWING SECTION.



1 the door-way—2 interior of cow-house—3 the stall division—4 the trough—5 the drain—
6 the window—7 the milk-passage—8 the ventilator—9 the outside.

the pasture-land is unfit to receive them. When possible, this yard should be well sheltered on the north and east, and open to the south and west. The root-store and boiling-room should adjoin the stable. The size of the house must of course be regulated by the number of beasts to be accommodated, remembering always that there is no worse economy than over-crowding animals, the effect of which has been seriously felt by several small farmers in Cheshire being compelled to keep their stock together, although knowing some portion of them to be suffering from disease. Mr. Leech, of the Brian Pits, informed me that by removing the first cow that was taken by the fatal disease (Pleuro-pneumonia) the remainder of the stock remained healthy, although many of his neighbors lost nearly the whole of them.

The system of stall-feeding has this to recommend it. It is most economical in first cost, and believed to be equally, if not more profitable, as compared with any other. Mr. Gibson, the Durham agent of Lord Londonderry, thus describes the mode in which he is about to construct cheap and useful farm buildings on the estates under his charge.

Close wooden sheds are proposed to be erected, fifteen feet wide inside, with a feeding passage in front, and a cleaning passage behind the cattle.—The sheds are to be made of home-sawn wood, and roofed with the same, coated with coal-tar. Inside they are to be fitted in the usual manner, with stalls, mangers, doors, etc. The whole may be erected at a cost of 10s. per head, where the timber is got free from the estate. If the value of timber is added, the cost will be 30s. per head. A shed seventy feed long by fifteen feet wide inside, affording accommodation for twenty cattle in stalls, seven feet to each pair, will cost as follows:—

	£.	s.	d.
3400 superficial feet of 1-inch deal, at 12s. per 100	20	8	0
40 larch posts at 8d.	1	13	4
40 couple sides at 8d.	1	6	8
20 baulks at 10d.	0	16	8
170 feet of wall plate at 1d.	0	14	2
170 feet of runners at ½d	0	7	1
2 barrels of coal-tar at 5s., in Durham	0	10	0
Nails	1	10	0
Workmanship	2	14	0
	£30	0	0

The temperature of the house should be kept up to about sixty degrees Fahrenheit, and great care should be taken to avoid all draughts, as cattle are peculiarly susceptible of cold. The strictest attention to ventilation is indespensable, as it not only preserves the health of the cattle, but prevents any accumulation of foul air, and thus the milk runs no risk of being tainted from that cause, as sometimes happens during the time it must necessarily remain in the stable.

Calf-Pens.—To every cow-house there should be attached, although at a sufficient distance to prevent the cows hearing the bleating of their offspring, a range of calf-pens. Each calf should be confined separately in a small, open-fenced pen, so that they may see one another, and just sufficiently large to admit of the animal turning itself round. The partitions should be four feet high, and floored with pierced boards raised at least one foot above the level of the earthen floor. Each pen should be provided with a small crib or manger, in which there should always be a lump of chalk for the animal to lick, so as to prevent gear or purging, to which young animals are particularly liable. In the front also of each there should be one or two moveable stakes to admit the calf, as well as to enable it, when they are withdrawn, to put its head through to the milk-pail or trough. I am inclined to think that calves thrive better when in a subdued light than when exposed to the full glare of noon-day. The calf-house should be kept at an even temperature, and open into a yard, such as is described in the ground-plan No. 3, letter VI., for the older calves, or for such as are intended for rearing, to take the air. In every department of the premises the strictest regard to cleanliness, dryness, and sweetness is absolutely necessary, to ensure the health of the animals and the success of the farmer.

Cows will thrive much better and yield a far greater quantity of milk when kept in their byre during the winter months than when allowed to wander up and down a stale meadow, exposed to all the sudden changes from heat to cold and from wind to rain. Except indeed during the heat of summer, cattle of all kinds are far better housed at night; and during the middle of the day at this season of the year, *i. e.* summer, they should be protected from the heat of the sun. When out at grass, cows should be milked twice a day, at fixed periods during the day, as they are peculiarly susceptible, and liable to roam or stray after the time of milking, and frequently not give their milk so freely as if milked regularly; and when lying in the fields all night they should be there milked at stated intervals during the day. In turning cows

out to grass, care should be taken either to let them leave their house before the dew is off the grass and before the sun has begun to evaporate it, or not until after its evaporation has been effectually completed, as they are otherwise apt to suffer very severely from wind. During the winter months and in the middle of the day the cows should be turned into a yard, situated as previously mentioned, and well supplied with water and feeding-troughs, and in which there is also a covered shed, in order that they may enjoy the air, and at the same time be protected against the inclemency of the season. While they are thus airing, the opportunity should be taken to thoroughly ventilate and clean their house, nothing being so essential to animals as warmth, quiet, and cleanliness. When kept moderately warm, they will consume less and thrive better than when kept cold and with an unlimited quantity of food. Great care should also be taken in providing all animals with good pure water.

Throughout the whole of the year, and whether dry or in full milk, it is always advisable to keep stock in good health and high condition, both being equally conducive to the plentiful secretion of milk and to the production of strong, hardy offspring. As a general rule, the different varieties of grass should form the staple food of cows during the summer months; but during the winter months, when sweet hay, roots, and a few vegetables are the chief food that can be obtained, the greater the variety the better. Thus, I should recommend that yellow mangold-wurtzel, *parsnips**, carrots, cabbages, rowen, Swedes, bean and pea-meal, and oil-cake should be plentifully provided for winter use, and judiciously supplied to each animal, the hay being cut in three-inch lengths, and mixed with some of the roots and vegetables above mentioned, the component parts being varied about twice a week; the whole to remain mixed for at least an hour before being given to the cow; and once a day, or whenever an animal's appetite appears to flag, I should be inclined to sprinkle three or four ounces of salt over the food.

From Mr. Caird's admirable work on English Agriculture in 1850–1852 I extract the following particulars of a farm in the parish of Shottle, in Derbyshire, which will convey an idea of a very economical and excellent system of soiling cattle.

"The farm consists of 130 acres, between thirty and forty of which are under tillage. A portion is under meadow and old pasture, and the rest in pasture in rotation with arable. Two successive crops of oats are taken when the land is broken up from grass; then fallow, limed and dunged; then wheat sown out with 'seeds,' which remain in grass two years more. The oats are said to average thirty-two bushels an acre—certainly a very moderate crop considering the quality of the land. There are twenty-two dairy cows kept on this farm—short horns or crosses. They are housed during the winter, and get very few turnips, but are kept in fresh condition by the following mixture of food in addition to their fodder of oat-straw:—The refuse of the oat-straw in the cribs, and any damaged or inferior hay, are cut into chaff, over which is poured half a peck of ground linseed which has been previously steeped twenty-four hours in cold water. The mixture, which is damped a little, begins to heat in twenty-four hours, and is then given to the cows once a day with a handful of bruised oats, but the half-peck of linseed mixture serves the whole stock three days. When the cows calve, their daily allowance is doubled, with a few turnips besides. This feeding is said to keep the dairy cows in good healthy condition when not giving milk, and is certainly not costly. The dung on this farm is carefully managed, and mixed with absorbent earth, and the whole liquid is collected in a tank, whence it is pumped over the dung-heap during the winter, and taken out to the meadow in the spring."

* This plant is unknown to many in Cheshire even as a table vegetable, but in Jersey and the Channel Islands it forms the staple food of the cattle.

AMERICAN FARMER.

Baltimore, March 1, 1857.

TERMS OF THE AMERICAN FARMER.

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At the *State Agricultural Society's Rooms*, 128 Baltimore-st.
Over the "American Office," 5th door from North-st.

Maryland State Agricultural Society.

The regular quarterly meeting of the Executive Committee, will be held on Tuesday morning, 3d March, at 10 o'clock, at the Hall of the Society in the city of Baltimore.

By order of Ramsay M'Henry, Esq., *President*.
mh1-1t Saml. Sands, *Genl. Sec.*

POSTAGE ON THE AMERICAN FARMER.

6 cents per annum—1½ cents per quarter—and 1 cent for a single number. This is in accordance with the decision of the Post Master at Baltimore.

The Chinese Sugar Cane Seed.—Gov. Hammond, of South Carolina, writes to the Editors of the American Farmer, for three or four bushels of the Chinese sugar cane, for himself and neighbors. Gov. H. informs us that much seed of doubtful purity, has been distributed—and adds:—"I perhaps had some part in starting the idea, that one quart would plant an acre. I now know that to *insure a stand*, three quarts are requisite."

We received 16 packages from Patent Office, which have been subdivided into several hundred packages, in each as much as could be sent by mail with a 3 cent stamp pre-paid, which we have disseminated far and wide, but our supply from that source is exhausted.

Japan Pea.—This Pea we hear of as being very productive, but cannot find that its value as a table esculent or as food for stock has made an impression. It is a beautiful round, yellow pea, and grows upon an upright branching stalk, which makes no vine, and seems to have no value as forage. We shall be glad to learn more of its character from those who have tried it.

THOROUGH DRAINAGE.

The receipt from the proprietor of the Albany Tile Works of a pamphlet showing from facts, and numerous experiments in New York and other States, the advantage and profits of thorough drainage, has put us in mind to call the attention of whom it may concern, to this subject. That there are vast bodies of most valuable land, which want but a ready outlet for superabundant water, to make them productive, is not to be doubted, and we are very well satisfied that there are many thousands of acres which yield fair crops now, which need draining only, to bring them to a rate of production much higher and much more certain. Every farmer knows well, that land is not productive when it is too wet; the misfortune is that he does not know with sufficient certainty when it is too wet. He is too apt to suppose, when water does not lie a length of time on the surface after a rain, that it does not interfere with his interest; he judges too much by sight. On the contrary, water which lies within three feet of the surface and does not readily escape, prevents a proper range of the roots of plants, and affects the quality of all the soil above it.

The advantages of draining as stated by Professor Johnston, are: 1st. *It causes the air to be renewed.* The passage of the rain water through the pores, driving out the air already there, and admitting as the water passes away a new supply. 2nd. *It warms the under soil.* Rain as it falls, acquires the temperature of the atmosphere. If that be warmer than the surface soil, the latter is warmed by it, and this warmth is diffused through the soil if the rain water can pass readily through. Thus the soil becomes warmer where the water passes through by the actual addition of warmth, and because there is less evaporation. 3rd. *It equalises the temperature of the soil during the growing season.* In the hottest weather, the direct heat of the sun, descends only a few inches through the surface. It may parch and scald them, (and every cultivator is familiar with this scalding where water lies at or on the surface,) and yet not descend sufficiently to give vigor to the roots below the surface. When the rain water passes freely through, it diffuses this genial warmth, and it gives life and vigor. 4th. *It carries down soluble substances to the roots of plants.* Rain falling upon any land into which it does not readily sink, runs over the surface dissolving such soluble matters as may come in their way, and carrying them away into drains and ditches—passing down, such matters are retained by a suitable soil, and taken up by the roots of growing plants. 5th. *It washes noxious matters from the sub-soil.* In the soil beyond the reach of the air, substances frequently collect which are injurious to the roots of plants. This, the descent of the rain alters in part, and makes wholesome, and in part washes out. Such land may then be safely ploughed deeper, and the roots may have a much deeper range. 6th. *The rain brings down fertilizing matters from the air.* The rain gives not only moisture, but organic and saline food for the use of plants. Ammonia and nitric acid, and many other exhalations which are daily arising from the earth's surface, come down in the rains. Common salt, gypsum, and other saline substances from the sea, are rarely wanting. Without a free passage through the soil, so that they may be deposited where wanted, these matters will be mostly lost again. Such are some of the advantages of thorough draining. But no cultivator of the soil is so little observant that he does not very well know that wet land is unproductive, incapable of producing good crops. But as we have said before, comparatively very few know how dry it ought to be, or rather how well drained it ought to be to bring it to its highest rate of production. Perhaps the simplest test is as good as any—a hole dug in the ground at the depth of two and a half or three feet—if the water remains in it some days after a rain, it may be presumed that the drainage is not as perfect as it ought to be. It is more or less perfect in proportion to the facility with which it escapes. We think it will surprise intelligent men, who will give attention to the subject to find what a large amount of our arable lands will not stand the test.

It is needless to say that arable lands which require draining, should be *under drained.* Open drains are out of the question, except for considerable bodies of water.

DIG DEEP.

We beg our readers to bear in mind, now that they are about to begin their spring operations, the necessity of thorough and especially of deep digging. Let them assure themselves that except in rare cases, they need fear no injury, but, very generally, immediate and increasing advantage.

The deficiency of what are called the mineral elements of plants in our apparently worn-out soils, we have no doubt is greatly exaggerated. We have tilled a few inches of the surface for a long series of years, and the soluble portions of these minerals have been taken up or washed away; but take the average of our arable soils to the depth of twelve inches, and we have very little doubt that they are sufficient, with a judicious course of cropping, to last a century, and perhaps, many centuries. Let us bear in mind the high degree of fertility to which many portions of the country have been brought from a state of apparently hopeless barrenness, by the use of organic manures alone, the clover-crop, the pea fallow, &c., and we will not conclude too readily that these lands are destitute of the inorganic elements. Think, too, of the present condition of the arable lands of the old countries. A

late writer whose remarks have been extensively quoted, says:—"We hear in America much of the exhausted soil of Europe. I have seen none of it. So far from being exhausted, I think the soil of Europe is now better than ever."

There is no reason to doubt the fact, but how can this be? The writer attributes it to their excellent system of manuring. But what sort of manuring? Remember that the most perfect system of manuring can scarcely return the mineral or inorganic matter that is consumed upon the farm. But every pound of grain and of food consumed away from the farm, takes off some portion of these mineral elements, which are irretrievably and forever lost to the soil. Now estimate the countless millions who have been consuming these elements, in cities, in manufacturing towns, in travelling by sea and by land, and that for centuries, and how small will appear the amount restored to the soil, compared with what has been forever wasted. It is almost as nothing. Even the bones they use are mainly the product of their own soil. And the few bones they get from other countries, some lime and magnesia from their rocks, and guano of late years, have been the substitutes of the waste of centuries. Yet "their lands are richer than ever." Let us take heart then, and dig for these minerals as for hid treasure. They are a mine of wealth hidden under the very heel of our ploughs. Bring them up to the atmosphere, open them to the rains, mix them with decomposing barn-yard manure, or a rotting clover sod or pea fallow, and be sure of the result. The earth is not yet worn out by a great deal, it wants mainly proper working. Our "manifest destiny" is not to be cut short by famine, even if science fails to supply us with better lights. Let us only work faithfully up to our present knowledge.

The mineral elements of plants are present in the soil in a soluble state, and available for plants, or in chemical combinations which require to be broken up. This last is a gradual and slow process. Nature thus husbands her resources. Nor will she dispense her gifts too freely to those who do not properly seek them. It may be very good economy to use phosphates and other mineral substances in a well prepared state, even when they abound in the soil, if they are not there in condition to be taken up. But what waste it is to spend our money upon these, and fail to use the ready means to make what we have in our hands available. The action of the atmosphere, the dissolving power of rain and snow water, the freezing and thawing of the soil, the vital power of the plants themselves, are forces operating continually to bring them into use. Closely packed down beneath the plough, they have been out of the reach of these influences. It is our business to bring them into use, and get the benefit of them, by the application of proper means. Of these, deep and thorough digging is the first; the use of green crops with their supply of ammonia and carbonic acid, is another. These perform the double office of furnishing organic elements, and bringing into use the inorganic. The effect of lime is doubtless owing mainly to its action upon these minerals. The great chemist Liebig, attributes the action of Peruvian Guano chiefly to its power of dissolving them. We believe he is right, and that its marvellous effects are due to the large store of mineral elements lying dormant in all our old fields, but put in action by this supply of ammonia.

ROTATION WITH PEAS FOR A TOBACCO FARM.

A subscriber at Nashville, N. C., inquires as follows: "I am at this time very much interested on the subject of a proper division of the farm, and rotation of crops, and wish your opinion on the following, viz: first year all the manure to be applied to land, to be planted in tobacco, and after the tobacco is off, sowed to wheat with guano or its equivalent. 2d year, after the wheat is off, sow it with peas at the rate of two bushels per acre, to be plowed under after the first frost. 3d year, sowed in peas broadcast to be fed first to hogs and then plowed under; and the 4th year, planted in corn and at the last working, sowed broadcast with peas, to commence again with manure for tobacco."

We say in reply to our friend, that such a rotation with the manuring he proposes, is sufficiently liberal as regards his land, and will no doubt pay him in crops, and improve the condition of his land. But we think it may be made less costly, without losing any of its benefits. First as to seed, the quantity per acre for the rotation would be six bushels. It might not be an object on a North Carolina farm, to economise in this respect, but few comparatively within the range of our circulation could use this quantity of seed at less cost than six dollars. There are some advantages in using as much as two bushels of seed per acre when intended for a wheat fallow. We get more growth of stem in a limited time, and more downward growth of root, and there is comparatively little running vine to impede the ploughing. On the other hand one bushel of seed makes a good covering, runs more to vine and makes more seed, and with time enough for the crop to mature well, and for grazing in part, we should use little more than this quantity.

Then our correspondent proposes six ploughings, making a great deal of extra work, and much

more than farmers or planters can devote to such a purpose. We think the ploughing under of the vine should be dispensed with. Let it be well matured, and then let the stock trample it close to the surface, and the land will have the full benefit of it. We have suggested several times methods of economising labor in putting in the pea crop, which we hope our friends will now bear in mind.

We would say to our N. Carolina friend, that if his soil is not very light, and is in pretty good condition, as it must be to produce tobacco, we think he would find a crop of clover sown in February or March on his wheat, a more economical improver than the pea cover. The labor would be but a single harrowing and rolling, and the cost of seed not more than a single sowing of peas. He may still sow peas when his corn is laid by. His rotation is not objectionable. The tobacco comes well after corn, with the intervening crop of peas, and finds the ground in such a state of preparation, that it takes an early and quick growth. The tobacco crop makes a beautiful preparation for wheat; leaving the ground perfectly clean and well worked, and getting out of the way in good time for seeding.

GRAPES—KING APPLE—THE ORCHARD.

A correspondent at Double Pipe Creek, Frederick county, Md., asks the following questions:

"Could you inform me, through the medium of the Farmer, where I could obtain the King Apple, either scions for grafting, or young trees? Is it to be found in any of the nurseries near Baltimore? I see it spoken of at the North as one of the best apples in the country.

"I would like also to know what kind of grape is best and most hardy—able to endure the severe cold of our winters? The Concord Grape I see recommended as being very hardy, productive and good; can you tell me where it can be had?

"What do you think of my plan of treating a young orchard? I have a young orchard just coming into bearing, which I intend to give a good dressing of lime and ashes on the sod, and then to let it lay without plowing, mowing, or pasturing, letting all the grass die and rot on the ground, putting straw around the trees a foot or eighteen inches thick, and about five feet around the trees, to keep the grass away, and the ground moist and loose. The reason why I do not want the ground plowed, is, that I have never been able to get a hand to plow it without injuring the trees, by bruising and tearing the bark off them."

ANSWERS.

1. The *King Apple*, is represented in the "Fruit Garden," by P. Barry, of Rochester, New York, to be "a large handsome apple, of fair, but not first rate quality; tree remarkably vigorous and fruitful.—October to January."

Mr. Barry the author of the work is an extensive nurseryman, distinguished alike for his correct judgment of fruits and for his candor. Of this apple we have no personal knowledge, but should place the most implicit confidence in the opinion of this gentleman.

We are not aware that it is to be found in the nurseries near our city.

2. *Grapes.*—The following list is given as comprising the best hardy grapes:

"1. *Catawba.*—This is the best flavored of all native grapes that ripen as far North as lat. 43 degrees, and is considered the best yet discovered for making wine. Bunches large, red, becoming a coppery color when ripe; juicy, sweet, and musky; hardy and very productive.

"2. *Clinton.*—A very hardy, native variety, resembling in foliage the common Fox Grape.—Bunches small and very compact; berries rather small, black, juicy, inferior in flavor to the preceding. It ripens here," (Rochester, N. Y.) "two or three weeks before the Isabella or Catawba, and this is its chief value; very productive."

"3. *Diana.*—This is a variety that originated near Boston, similar to the Catawba; not quite so large, but earlier and better adapted to the North."

"4. *Isabella.*—This is the most popular variety. It ripens well in almost every part of the country, and bears immense crops under the most ordinary management. Bunches long and large; berries large, oval, black, juicy, slightly musky."

We have grown the Catawba and Isabella, and know them to be good, hardy, and productive.

The *Concord Grape* is of Eastern origin, has been highly spoken of. We have no further knowledge of it than representations that we have read in some of the Eastern Agricultural Journals. It may be all it is stated to be; but we should prefer the Catawba or Isabella. New varieties of all kinds of fruits are very apt to be praised in high notes.

3. *Management of the Orchard.*—We like a part of our correspondent's plan for the management of his young orchard, and disapprove of the other part. The application of straw around the trees 12 or 18 inches in depth, and around and about the bodies of the trees to the extent of 4 or 5 feet, is certainly a most wise and prudent provision, as it will both maintain moisture, and prevent the grass from growing. In the winter, however, the straw should be removed to prevent its becoming a harbor for field mice.

The experience of the best informed orchardists have forced the opinion upon their minds, that young orchards should never be cultivated in grain crops, or grass crops of any kind, nor be permitted to grow up in weeds; but should, for several years after they come into bearing, be cultivated in some *hoe-crop*, as potatoes, ruta-baga, or other turnips, beets, parsnips, carrots, &c. We do not think a corn-crop favorable to the growth and production of the trees, as the height of the corn gives too much shade to be healthful to the growth and vigor of the tree; they delighting in a free circulation of sun and air.

In speaking on this subject, Mr. Barry, one of the best authorities, has this paragraph:—

"*After-Management of Orchard Trees.*—This consists in the cultivation of the soil among the trees, and pruning them to regulate their growth. For the first five or six years after planting, the ground among orchard trees may be advantageously cropped with potatoes, ruta-bagas, or sugar beets. The manuring and culture that these roots require, keep the soil in good condition, and will assist in defraying the expenses of the orchard. Grain crops should never be planted among trees, as they deprive them of air to a very injurious extent. If no root crops are cultivated, the ground should be kept clean and mellow with a one-horse plow and cultivator. Every third or fourth year, the trees should receive a dressing of well decomposed manure or compost adapted to the wants of the soil and trees, worked in around the roots with the forked spade. This should always be done in the fall. Dwarf apples and pears require more frequent and liberal manuring than standards, because their roots occupy a limited space; their heads are large compared with the roots, and they bear exhausting crops. Whoever has a large plantation of these trees, should be well provided with heaps of compost a year old, and give each tree a peck to half a bushel before the setting in of winter every year. This will maintain their vigor and ensure large and regular crops of fine fruit."

We have spoken approvingly of the covering of straw to be given to his trees, as proposed by our correspondent, though, upon reflection, we think the depth of 12 or 18 inches too much. If he would put the straw but one-third that depth, and put an inch or two of woods-mould over it, it would be better.

The application of lime and ashes as proposed by our correspondent is excellent, which should be given broadcast and harrowed in.

The following is a partial analysis of the apple, and shows that lime, potash, and phosphate of lime, are essential to the healthful growth of the apple tree:—

	Sap-wood.	Bark.
Potash,	16	5
Lime,	19	51
Phosphate of Lime,	17	3

Viewing the analysis as our guide, we would say:—1. That the soil of every orchard wherein apples are grown, should receive a full dressing of lime and ashes, and, 2. That, periodically, at intervals of 3 or 4 years, it should be top dressed with a compost, per acre, comprised of—

4 bushels of bone-dust—10 two-horse cart-loads of woods-mould, ditch, or road-scrapings, pond, river or creek mud, and 4 two-horse loads of stable or cow-yard dung, formed into compost, suffered to lie a season before used.

We think the injury from ploughing among apple-trees can only result from the most culpable neglect, as the plough should not approach the body of the trees nearer than 5 feet.

☞ The Virginia Agricultural Society proposes to adopt some means for collecting useful information with respect to the crops in that State, and the Executive Committee, at its last meeting, appointed a committee to take the subject under consideration.

BOOK NOTICE.

The Rural Poetry of the English Language—Is the title of a work, illustrating the seasons and months of the year, their changes, employments, lessons and pleasures, topically paragraphed; with a complete index: By Joseph Wm. Jenks, M. A.; published by John P. Jewett & Co., Boston.

We have received a copy of this book from the publishers through Messrs. Armstrong & Berry of this city. It is a large octavo of five hundred pages, printed on very fine paper, with clear, beautiful type: is elegantly illustrated with various designs, representing rural occupations and pleasures, and with views of country residences of several authors from whose writings selections are made, and altogether, in outside show, makes a fit ornament for the centre table.

The contents are a treasure of good and beautiful things gathered from a thousand sources; from the best English and American poets, and translations from Greek and Latin poets. Hesiod, a wonderfully grave, discreet and prudent old gentleman, much "more of a husbandman than a poet," says Mr. Addison, will teach the reader here some precepts which he may possibly have thought belonged to the "New Husbandry." Virgil adorns for him some of the wisest rules of his art, with all the beauties and embellishments of poetry, and quaint old Thomas Tusser rhymes on "a thousand points of good husbandry." Milton gives us his description of Paradise, or his glorious morning hymn. Thompson discourses of the seasons. Cowper describes a garden. Indeed whatever kind of rural poetry we may fancy—Georgics or pastorals, a rural ode, or a rustic ballad, psalms and hymns of praise, beautiful images, and noble descriptions, we will find them here; and arranged with so much care, and such exact and copious captions, that, to use the words of the author's preface, "any favorite passage, and indeed any sought for sentiment, name, precept, description or allusion, may be turned to, without the loss of a moment." For convenience of reference to those who have, and for economy with those who are not able to have full copies of the best poets, this work will prove valuable. It will aid, we hope, in elevating the tastes of our country population to a higher appreciation of the beauties, the enjoyments and the delights of rural life.

☞ We acknowledge the receipt of an ADDRESS delivered before the Ag. Society of Montgomery county, Pa., by Hon. J. R. Tyson, L. L. D., of Philadelphia. The address is an interesting delineation of the character of Job Roberts, the author of the "Pennsylvania Farmer," published in 1804, and an eminent, skilful, progressive farmer of that day. It is a happy idea to keep alive in this way the memory of such a man, and make a lesson of his example for the living. Dr. Tyson has done this well.

FARM ACCOUNTS.

We are gratified at receiving the statement below, from a gentleman who has made it on the suggestion, and after the method given in our January No. for 1856. He kindly expresses his satisfaction with this simple plan of keeping accounts for the farm. We recommended it, on our own experience, as more likely to be acceptable to farmers, who are little accustomed to accounts, than more complicated methods, and are pleased to find that it has been made available to at least one intelligent subscriber.

The importance and value of farm accounts, should not be overlooked. It is a great point, in matters of business, that a man should know just what he is doing. Does it pay? or, may it not pay better?—are both questions of much significance. But how can they be answered when, for want of systematic accounts—without any proper estimate of his stock in trade, or any regular account of his outgoes or incomes, he has no real knowledge of the condition of his affairs. One man goes behind hand year after year, and for the life of him cannot tell what the matter is. A careful analysis of his affairs once a year, by the aid of correct accounts, would soon point it out to him. Another says he is making nothing from his property, because he finds he is not able to invest in stock, or otherwise "lay by" money, when a careful account would show large sums expended for the use, or the comfort or extravagance, of his family, for the rearing and education of a number of children, and for large additions to the intrinsic value of his land; for all of which the farm is entitled to a credit which it does not get; and independent of all other advantages, the intelligent farmer who has once made trial of it, will not be willing to dispense with the pleasure and satisfaction, which a thorough insight into his affairs will give him, by over-hauling, and sifting and examining them in all their details.

The point of most difficulty and trouble, is in making a correct estimate at the close of the year, of the crops, &c., which may be then on hand.—On this account it is desirable to have the year begin and end when there is the least amount of crop on hand; and this, on a grain or tobacco farm, would be about the first of June or July. We suggest this change, therefore, as advisable to those who may hereafter commence such accounts. The past year's crops being generally disposed of at this time, and the new ones not come in, there is very little, except the working stock, to make a valuation of.

It will be found that our friend's statement shows five per cent. on his land, and ten per cent. on the personal property, with a small balance over.

BALANCE SHEET RIPON LODGE FARM, 1856.

Dr.			Cr.		
1856.		$ c.	1856.		$ c.
Jan. 1.	To 5 per cent. invested on 370 acres land, at $80 per acre,	1500 00		By 1900 bushels wheat, sold at $1.34,	2546 00
	To 10 per cent. interest of Negroes, at $1000 each,	1000 00		" 150 barrels corn, at $2.50,	375 00
	To estimated value of Farm Stock,	2000 00		" 244 bushels wheat sown, at $3 per bushel,	732 00
	" " " of Implements,	787 00		" 5000 pounds pork, at $6.50,	325 00
	" Corn on hand, 275 barrels, at $2.75,	755 25		" 600 pounds bacon on hand at 12½ cts.	72 00
	" 6000 pounds pork, at $7,	420 00		" House rent, garden, orchard, firewood,	400 00
	" Value of Hay and other provender,	250 00		" Poultry, butter, lard, eggs,	100 00
	" Clothing of ten Negroes,	253 00		" 500 pounds bacon for house,	50 00
	" Store account vs. Farm	50 00		" 10 Muttons, at $4.00,	40 00
	" State and County Tax,	169 02		" Clothing three house servants, at $30,	90 00
	" Medical bill for Negroes,	25 00		" Keeping of 3 pleasure horses, at $50,	150 00
	" 242 bushels wheat, and seeding,	726 00		" 216 pounds wool, at 32 cents,	69 12
	" Coal and iron for shop,	40 00		" Cash from Cows sold,	90 00
	" Implements purchased during year,	200 00		" Corn fed to 10 steers sold, 30 bushels at $2.50,	75 00
	" 6 per cent on $767, farm implements,	46 02		By Cash for horse sold,	125 00
	" Overseer's wages, Board, Washing, &c.	300 00		" Cash for horse put to carriage use,	250 00
	" Cash paid for labor in harvest,	50 00		" Cash for thirteen sheep sold,	51 80
	" 4 bushels cloverseed, at $8.50,	35 00		" Farm Stock $2200—Improvement $900	2400 00
	" 4 bushels timothy seed, at $4,	16 00		" Implements purchased, less 10 per cent,	180 00
	" 4 tons Plaster, a $8.50,	34 00		" Value of hay and other provender,	250 00
	" Gratuities to serv'ts at harvest & Chr'mas,	50 00		" Toll wheat and bread 100 bushels, at $1.33	133 00
	" Three tons Guano, and transportation,	185 00		" Farm implements, less 6 per ct. for use,	721 12
	" Blacksmith's and Wagon Maker's ac't,	15 00			
	" 100 bushels bran, at 10 cents—50 bushels ship stuff, at 17 cents,	18 50			
	To Cash paid for 5 cows, at $50,	250 00			
	" 66 bushels toll wheat, a $1.33,	87 78			
	" Toll on wagon hauling wheat, plaster, &c.	10 00			
		$9,294 20			$9,396 25

Balance of $32.05 in favor of farm in 1856, after allowing 5 per cent. on estimated value of land, and 10 per cent. on value of negroes.

December 29, 1856.

For the American Farmer.

PHOSPHATIC FRAUDS.

In the December No. of the American Farmer, a sweeping denunciation of all Super-Phosphates is published, as the echo of an ipse dixit of Professor Johnson, of Yale: "*and now,*" (it is said) "*he must be a bold man, who buys Super-Phosphate of Lime.*"

The Editors of the American Farmer, very properly, under these circumstances, deny any particular responsibility in foisting these "*so called*" Super Phosphates upon the agricultural community, and throw the responsibility of their recommendation on Dr. Stewart, and a host of letters from all parts of our State, written by men whose intelligence and interest in agriculture, seals forever the value of their opinions.

Under these circumstances, I have had a great curiosity to see the "Country Gentleman," and have secured the number containing the original article of Professor Johnson of Yale. His first proposition or sentence is as follows:—

"The enormous quantities of material that have been sold under the name of Super-Phosphate of Lime, within a few years, *with a prospect for increased sales in the future*—prove that the use of a genuine article is remunerative, and make all contributions to our knowledge of this subject of exceeding interest."

"In the *Eastern* States, where the soil is poor, and the market good, *this* and kindred artificial fertilizers have become almost *indispensable* to *many* of our best farmers."

The "*material*" sold under the name of Super-Phosphates, is De Burg's compound and several others of less importance and value, and it appears from the above, that the shrewd Yankee farmers are actually gulled, as well as we Marylanders, and the epidemic is spreading in New England.

It appears also from what follows, that in 1852, Professor J. recommended the *pure Super-Phosphate*, and that there, as here in Maryland, "it will not go," as do these *compounds*, "so called Super-Phosphates;" every one will remember that five or seven years since, all our farmers were dissolving bones and making pure Super-Phosphates, by mingling oil of vitriol and phosphatic guano, (very much the process now suggested by Professor J.) —and our chemists were making ("bi-posters," as their laborers called them) bi-phosphate of lime—and by the way, this is the better name, as the word "Super-Phosphate" is now generally understood to mean an indefinite *compound* of phosphoric acid, *having an acid reaction;* whereas, bi-phosphate *always* means two of acid to one of base; super is indefinite, and may with propriety be applied to compounds of phosphoric acid with *either more or less* base than bi-phosphates.

Well, the pure bi-phosphates had their day in Maryland, but it was soon discovered that they were expensive, and not adapted to one farm in twenty, whereas, such compounds as De Burg's were almost universally successful, and equal to the best Peruvian Guano, pound per pound, in many cases.

Professor Johnson has fallen into the error, so common among chemists, that ammonia and phosphoric acid are the only elements necessary to the universal success of a manure; and that, in estimating the value of a manure, all other elements are to be omitted, according to Professor Way, of England, who is certainly wrong, if he made such rules for universal manures, such as De Burg's—in which each of the seven elements, *unnoticed* in Professor Johnson's analysis, is *as important* to its success, *as a general manure*, as *the two* upon which he supposes all its value depends. Again, I think Professor Johnson is in error when, in estimating the cost of De Burg's compound, he allows him only $11 per ton, or about 25 cents per bushel for ground bones, and thus reduces the cost of his compound to $25 per ton. I have myself made these compounds in the large way, both on my farm, and in the large chemical factories of Baltimore, with all the facilities of large vats, floor-beds, and an experienced force of laborers at my disposal, and I can say to these pen and paper calculations,—"Gentlemen, you think you are right, *but I know you are wrong.*" Moreover, I have applied, with my own hands, the *pure* bi-phosphates, without any appreciable effect, even in the most liberal doses: whereas, on plots manured with "the mixed Super-Phosphates," the effect was so perceptible, that travellers on the highway would stop, to enquire of the tenant what had been applied to that spot. I have seen a 15-acre field of wheat in the spring, uniformly 3 or 4 inches high, except a poor knoll, dressed with this "*unchemical* mixture," where the wheat stood up uniformly 14 inches, in beautiful dark green stools, and I have seen the red clover afterwards mark the spot as an oasis. See also my corn experiments of this year, with several of the compounds that Professor J. condemns as utterly worthless, and not to be compared with De Burg's. [Am. Far. Nov. 1856, page 133.] If I dared use a private letter, I could quote one of the most distinguished men of our State, an intelligent and *practical farmer*, who wrote to me last autumn, for advice about an application to his wheat crop, and incidentally remarked, that he had tried last summer De Burg, fish manure, manipulated guano, and Peruvian Guano, and thus far, De Burg was equal to the Peruvian, pound for pound, on his corn.

We want a substitute for Peruvian Guano, that will be more certain, and that will never exceed $40 per ton: If De Burg or any other man can produce it, let him live,—yes, let him make a fortune in seven years, or in one, if he can. He cannot retail his compound for less than $40, although he has the command of capital, and gets bones from South America, and the cost of his materials, &c., may not exceed $30, while others, without these advantages, could not produce the same article for $35. Can we trust him? This he does not ask, but sells his compound to men whom we know, and who reject all below the standard, and thus the farmer is secured. Let others go and do likewise: the more competition, the better for the farmer. Let us encourage competition, by encouraging De Burg & Co., and others that stand at the head of Professor Johnson's list; but if we succeed in discouraging them, and condemning them *purely* because they make a profit, then no others will enter the lists, for fear of being branded as extortioners.

No one can read the paper of Professor Johnson referred to, without admiring his bold, disinterested effort to set forth the truth—and his familiarity with his profession; but it requires the eye of an expert to appreciate the labor and patient investigation upon which those tables were founded by his pupils.

We have no Connecticut school funds, and but

a few who have an ear to hear any plan to cherish the buds of our budding science, that would grow on their native soil in Maryland. Yet a nucleus has been formed, even here, and agricultural chemistry, and the analysis of soils and manures, is here studied and practiced, to some extent, by our students, both in the lecture room, laboratory and field.

D. STEWART, M. D.

St. John's College, Annapolis, Md.

[*For the American Farmer.*]

SUPER-PHOSPHATE OF LIME.

Having in my two former numbers given my mode of preparing and using the above fertilizer, I now proceed to give the results of its use. Before doing this however, it will be necessary for me to give the character and condition of the soil upon which I operated, as well as my course of farming, rotation of crops, &c.

The soil is made up of disintegrated slate, mixed with sand and clay, with clay sub-soil at a depth varying from six to fifteen inches from the surface. The clay of a yellow, approximating to a red color. The growth of timber consists of black oak, white oak, hickory, and chestnut. The land lies rolling, with some meadow ground of a loamy character. The land presented an appearance of almost total exhaustion, when I took possession of it in 1851; so completely was this the case, that my crop of corn the first year, though the land was thought the best on the farm, and was limed fifty bushels to the acre, did not yield me more than three barrels to the acre. My course of farming was deep and thorough ploughing, and the use of Peruvian Guano to my wheat lands followed by clover the next spring. By this means I was furnished with straw as a material for manure and some clover. These lands were subsequently put in corn in regular succession, liming them at the time with fifty bushels to the acre. My corn lands were followed by oats, then wheat, after careful manuring, and clover, in which condition I permit them to remain from two to three years, either for pasture or hay.

My first trial with the super-phosphate was in the fall of 1852. The field above referred to as having yielded three barrels of corn, was broken up before harvest. It lay in this condition until September, when it was manured with five four horse loads of farm yard manure, with such scrapings as I could command about my buildings, and well stirred, putting in the manure upon the ground. In this condition I sowed my wheat and two bushels and a half of the super-phosphate, harrowing both in together. The following spring it was sowed in clover and orchard grass and a part in timothy. The wheat was remarkable for the strength and cleanness of the straw, the size and fullness of the head, and plumpness and maturity of the grains. When cut and thrashed, the yield was *twenty-one bushels and three quarts* to the acre, weighing considerably above the standard. The grass was remarkably fine, and for the land, considered astonishing; yielding me for three successive years, near, if not quite, two tons of good hay to the acre. This field, with a very heavy sod upon it, was broken up last fall, for corn the coming year. This one case presents a fair specimen of the results obtained in all subsequent instances of the use of this article. But to test more fully the value of the super-phosphate, I tried the following experiment.

I had two fields, one of them in tolerable heart the other exhausted, denuded, and impoverished to a miserable degree. Both had been limed fifty bushels to the acre, and otherwise similarly cultivated, with the exception that the first named was in part, in clover. The first was put in oats, excepting the part in clover; the second being corn ground the previous year, was broken up before harvest, and permitted to lie in this condition until fall. In September the first named field was manured with ten four horse loads of farm-yard manure, broken up, turning in the manure and sowed in wheat, put in with the double shovel.—At the same time the other field was similarly managed, with the exception of putting upon it six loads of manure, after which two bushels and a half of the super-phosphate was sowed upon it, the wheat following, and the whole shovelled in together. Both fields were sown to clover the following spring. At harvest the most casual observer could not fail to see the difference in the two fields. The first looked well, but it was evident that the second had greatly the advantage.—When both were gathered and thrashed, the first yielded *eighteen*, the second *twenty bushels and one peck* of superior grain The difference in the clover was still more remarkable; that upon the second field being estimated at being one-third better than the first.

Such has been the result of my experience in the use of the super-phosphate for five years.—The average yield from Peruvian Guano, has been fifteen bushels; that from farm yard manure alone, from sixteen to eighteen bushels, while the super-phosphate has averaged me from twenty to twenty-two bushels. Its effect in the growth of clover is most remarkable, and I am sure I am safe in saying that the yield from it is fully one-third more than from either of the other articles; particularly so of the guano.

These results have been thrown together hastily, amidst the hurry of numerous engagements. I know them to be under, rather than over estimated; should they subserve the interests of my fellow farmers in any degree, I shall be fully compensated.

THOMAS SIM.

Libertytown, Feb. 17th, 1857.

GUANO--SUPER-PHOSPHATE OF LIME, &c.

[Mr. Gilmer, in forwarding $5, in advance for several years' subscription, says: "At the close of each year's subscription, hereafter, send my bill, and if I don't remit to you the amount in time, *just stop the next number*, and I guess I'll be after you in time for the next number."] He adds:—

"I can't close this without giving you an account of my efforts at farming, and its results, to which I have been stimulated in part, by your useful paper, the American Farmer.

I have been using lime, ashes, plaster, Peruvian and Mexican Guanos, Bone-dust, De Burg's Super-Phosphate of Lime, and salt, and am now about to make an experiment with saltpetre. On the crop of wheat seeded in 1854, I used Peruvian and Mexican Guanos, separate and mixed, ploughed in with a three, two and one-horse ploughs, and harrowed in by a large three-horse harrow, with the wheat. If there was any difference, it was in favor of the harrow; that crop yielded me better than any pre-

vious crop, making a fraction over seven to one, on a part of which I used lime, and lime and ashes mixed, sowed by hand, I think in the last of January and first of February, at the rates of from two to seven bushels per acre, sowed across the wheat and guanoed lands, to render it a fair experiment. At the time of heading out, it could be seen a quarter of a mile off, to the very line where the lime stopped; the wheat on the limed part being from six to eight inches the *highest*, but few if any, underling heads. I have always since put in my guano, together with my wheat, by the harrow and cultivator, to a good account.

On the crop of tobacco made in 1855, I used a ton of guano alone, in the drill, at the rates of about 150 lbs. per acre; the land being previously well prepared by the ploughs, harrows and rollers; then laid off the rows 3½ feet apart, with a one-horse plough, just deep enough to see and hold the guano, in which I scattered the guano, then listed over it with a two-horse plough, on which I set my plants 3 feet apart, and so worked the crop as not to disturb the guano. This idea I got from my neighbor and friend, Mr. Thomas Garland, who is one of our best tobacco growers. It was the best crop of tobacco I have ever raised; the guanoed and drilled part of the crop beating my best farm-pen manured lot, hilled up in the old-fashioned way. On a portion of this drilled lot, I applied lime (about 20 bushels per acre), in February and March, and in May, the guano: where the lime and guano was applied, it was the best tobacco.

On the crop of wheat seeded in 1855, I applied six tons of Peruvian Guano to 76½ bushels of seed wheat, all harrowed in together. In the spring—March or April—I sowed by hand, 262 bushels of lime on it; had less fly, joint-worm, &c., than any of my neighbors, and made a little over 12½ bushels for each one seeded. This was the very best crop of wheat I have ever made. Hearing a neighbor, (an old tobacco planter) speak in high terms of De Burg's Super-phosphate of Lime and bone-dust on his tobacco crop, I determined to try it. I ordered a ton of Peruvian Guano, and a ton each of De Burg's and of bone-dust, and mixed them all together, except about 150 lbs. of the Peruvian Guano, which was applied alone. The guano again beat my farm-pen manure, and the manure beat the mixture of De Burg, bone-dust and guano, which satisfied me, so long as the guano acts so well for me, I'll stick to it, at a fair price, and he who chooses, may try De Burg and bone-dust,—I confess these manures had not a fair chance, as I last year had an overseer who very unwisely rolled my tobacco lot, while too wet, with a six-ox roller, which caused the land to bake, and then the drought; yet the guanoed part was likewise dealt with, and whilst it did not do so well as the year before, it acted much better than the mixture of the three.

Last fall, I used ten tons of Peruvian Guano, a ton of De Burg's Super-phosphate of Lime, and a ton of bone-dust, on the seeding of 121½ bushels of wheat. On this crop I used them all separate and distinct from each other, so as to let each speak for itself. So far, the guano is far ahead of the De Burg, and I think the De Burg a little ahead of the bone-dust; both being so far in the rear of the guano, I was unwilling to trust my crop to so slim a chance. I last month sowed a mixture of guano and plaster across the greater portion of the De Burg and bone-dust, just leaving enough of each to speak out fairly for themselves next harvest. I had purchased the De Burg before I discovered its total failure on my tobacco crop, or I should not have gotten any more of it.

I drill and list all my guanoed tobacco land, as it saves the labor of hilling by hand, and I think yields much better, as the guano is then never exposed to the summer's sun. Some object to this, fearing the wheat would be in rows. This I prevent, on high land, by ploughing across the tobacco rows, then harrowing upon a level, rather across the tobacco rows, on the flat lands; to drain it we are obliged to bed it, and of course to plough with the tobacco rows—the wheat lands are then laid off across these beds, the wheat and guano sowed (for I always sow guano with wheat, even upon my tobacco lots,) then harrow also across the beds, which completely spreads the drilled manure; the water-furrows are then opened, as deep as a fresh point upon a three-horse plough can do it; then run three furrows in them with a two-horse coulter, and again run the plough; then finish with shovels, which is the quickest and most effectual mode I have ever seen tried, and have never yet seen the first sign of the drilled guano.

Last fall I made some rank experiments with lime and guano. I spread from 20 to 30 bushels of slaked lime upon fresh ploughed land, and harrowed it in, in July and August; then sowed the guano and wheat in October. On one part I spread the like quantity of lime, sowed the guano and wheat, and harrowed them all in, the same day and together; the wheat looks as well now as any I have; all of this was air-slaked lime. To-day, I finished sowing by hand, 180 bushels of sifted lime, upon my 121½ bushels of seeded wheat, and hope in the spring to sow as much more.—I have great faith in even this small dose of lime, thus applied to the growing wheat, to keep off the fly, and our greater curse, the joint-worm.

What think you of putting in oats, upon corn land, with a large, heavy four-horse cultivator? What think you of running one of these large cultivators over our oat lands, immediately after harvest, instead of ploughing in the stubble? It could be so quickly done, which would give the oats more time to grow; then plough in the green oats and stubble together for wheat. I put my corn land in oats, and the oat lands in wheat, and have succeeded much better on this rotation, as it enables me to seed my wheat in much better time and style.

I received a letter from a friend, upon preparing seed wheat with saltpetre, at the trifling expense of 12½ cents per acre, which letter was published in the last September No. of the Southern Planter, over the signature of "*in cognito*," which plan I intended to have tried, but, unfortunately, my cargo of saltpetre was delayed in Richmond, or lost on the way, so I did not get it until after completing my seeding of wheat. As soon as the weather will permit, I think of mixing a few pounds of the saltpetre with plaster, and top-dressing a few acres of my wheat with it; how will it answer, think you? The remainder I shall try upon my corn and tobacco crop.

An objection to listing for tobacco, with some, is the great difficulty of setting the plants at a regular distance. This I shall endeavor to obviate, by running a roller over the list, which will just cover two tobacco rows, it being just six feet in circumference. I'll nail cleets on, equi-distant

from each other, which will make the indenture on the list every three feet, in which I'll stick my plant, which, if correctly done, I have no doubt will be of service in two ways: it will, by pressing, put the plants nearer the guano in the drill, and the plants being put in these indentures, will, in a measure, protect them against the rays of the sun.

Can't T. G. C., of Prince George's county, Md., be induced to give us the mode of his experiments in preparing seeds, which he neglected or omitted to do, in his article on Preparation of Seeds, in the January No. of your American Farmer?*

With best wishes for your highest success,

Very respectfully yours,

GEO. C. GILMER.

Inglewood, near Carter's Bridge, Albemarle Co., Va.
January 17th, 1857.

P. S.—A neighbor and friend of mine, who is one of our very best farmers, has just sent to borrow of me every drawing knife I could raise.—Knowing him to be better supplied with all such articles than any other farmer I know, I asked his boy what on earth his master wanted with so many drawing knives. He said he wished to skin or bark his pine poles, for a tobacco house. I directed him to go back, and say to his master, if he would grind one of his ditching spades sharp, with that he could bark more logs than six men could with drawing knives. Simple and true as it is, it seems all do not know it. G. C. G.

[* We have a number of calls to this effect on Mr. Clemson.—EDS.]

AGRICULTURAL DEPARTMENT—STOCKBREEDING—VINEYARDS—SARGHO SUGAR—DAIRY SECRETS, &c.

There are more things in skilful husbandry,
Than are dream'd of in your economy.
(Shakespeare—if he lived.)

To the Editors of the American Farmer.

Dear Sirs :—I seldom receive a number of your excellent paper that does not contain one or more articles, on which I am tempted to vent my impressions and sentiments in a little familiar chat with its Editors and subscribers. I am generally compelled however, to deny myself this pleasure from the want of, 1st, the necessary leisure, and 2d, the happy illusion of many news-paper correspondents, that the world at large shares their delight in beholding their literary effusions in print. Moreover, the consciousness of my inveterate ill nature, and propensity for *charivaric* criticism inspires me very properly with a certain dose of caution in the exercise of my pen, to say nothing of a little scruple I entertain as to whether, from my location and line of business, I may not appear somewhat of an outsider among your usual good-humored and able-pocketed contributors. For although a subscriber to the "Farmer" for the last ten years, I cannot be counted strictly as one of that class of your readers, to which your valuable paper, under its expansive title, is more especially devoted and adapted.

For ten years past I have been engaged here in establishing a colony of settlers in a comparative wilderness, and during the last five years have employed myself more particularly in clearing away the primeval forests and preparing the luxuriant virgin soil for the grazing and stock-breeding business, in which branches I have hardly made more than a beginning. Although born in a more genial country, and bred to a very different mode of life, I am exceedingly fond of my present situation and occupations, and thanks to a reasonable share of professional reading, and constant practical observation, I may hope, in course of time, to remain but little behind those of my neighbors, who were "rocked in a sugar trough and reared between the plough-handles." Yet notwithstanding present and prospective advantages, mine is a very tedious and laborious way of getting along in the world, and it was with no small exultation, that I hailed the project, god-fathered by your late Guano Convention, to petition the competent authorities for the establishment of a federal "Department of Agriculture." You will perceive at a glance, Messrs. Editors, the innumerable advantages which myself and neighbors will reap from such a paternal institution. If you have ever been in this region of country, you know it is very hilly, heavily timbered, and more or less beautified with roots, rocks, stumps and other little features of nature of like comfort to the ploughman, and must have come to the conclusion, that by the time the pioneer has cleared an acre of such land, and raised a crop of corn on it, he has pretty well paid for both. These obstacles cannot fail to attract the early attention of the contemplated Department. It will be but a small matter to level off these hills a little, and to kill two birds with one stone by distributing the rich surplus soil, rocks, and timber, among other regions East and West of us destitute of such resources, and all this without exporting a solitary American dollar to Peru or any other such foreign, and unthankful places.

If perchance a seeming shade of presumption in my expectations should suggest to the customers of Barreda & Bro. the question: why I do not get out of the way of the obstacles above denounced, by migrating to a better country, I would simply reply that: "de gustibus non est disputandum," and shall not retort by commenting upon their attachment to their own much *endeared* ancestral acres; although many of these were never hinted by Providence for anything but goat-walks and brick-yards, or were reduced to that condition by a process of things scrupulously foreign to any hint of Providence whatever. On the contrary, the task of reclaiming their wasted inheritance, and of regenerating their native State, is a noble one, and deserves every commendation, but—if they cannot accomplish it without importing *annually* millions worth of bird lime from the South Pacific, and creating a special "Federal" secretaryship of Guano ("or whatever else you may call the *thing*, for

. . . . . a rose,
By any other name would *smell as sweet*,)"

it becomes a question for the national economist, and for old school farmers whose system provides for its own manure, to what extent they are entitled to the complimentary epithets of "intelligent farmers, public spirited citizens, and patriotic gentlemen," which editorial courtesy generally prefixes to their names in the mention of their literary effusions or professional achievements.

You see, Messrs. Editors, I was right in mistrusting my temper; there I am on my high horse already; so I had better put the saddle on another one, as it is wondrous seldom that offensive remarks get credit for good intentions. I should not be surprised if I had been suspected before now by "whom it may concern," for being the individual, who at one of your late Society Fairs, having of-

fered $100 a piece for grade bull calves on exhibition, was *answered* by the public spirited —— owners of those "taboed" animals, in classical trans-Alleghanian, "whare d'ye kum from"? This characteristic little adventure, however, did not happen exactly to myself, but to a friend from a neighboring county, and moreover I trust the like will not happen again very soon. If the Department in question knows its business, it will first decree the desired diminution in the price of the *exotic* dung which hatches the provender of *imported* stock in your vicinity, and then, *I* hope at least, make it a point of common justice and decency among *national* and patriotic stockbreeding magnates, not to ask more than three prices of a more homespun fellow-laborer in the same field.

But, decidedly, I must get off that horse. Your November No. contains under different heads, two references to the art of producing male or female animals at pleasure. I had previously heard of the experiment of my old countryman de Gourcy, and my limited observations induce me to attribute some foundation to his theory. I have never taken account of the condition of my cows when they became pregnant, but I was struck with the result of the following observations in reference to young heifers, which may properly be assimilated to cows with empty bags:

1st year—16 heifers, by the same bull had 11 male, 5 female calves.

2d year—19 heifers, by the same bull had 13 male, 6 female calves.

3d year—7 heifers, by the same bull had 5 male, 2 female calves.

Accordingly, the proportion of males to females was for each year a fraction over 2 to 1.

I am happy to see that you take occasional notices of the culture of the grape in the U. S., and I regret that the complex nature of the subject does not permit you to treat it so extensively as other matters more strictly pertaining to the farm. If any of your readers contemplate engaging in this interesting branch for profit or pleasure, they will do well not to trust its management unreservedly to European vine dressers, recently arrived in this country, but to avail themselves as much as possible of the experience of successful American wine-growers, such as Longworth, R. Buchanan and others of the same vicinity. The little work of the last named gentleman on the culture of the grape, is recommendable as an excellent guide to those who wish to make a good and safe beginning. It is plain and practical, just the thing for a new hand. On commencing my own vineyard, now embracing about one acre, I could not immediately discard all my imported notions on the subject, but since I modified my system of culture according to soil, climate, and mechanical, local peculiarities, I am warranted in the hope of producing as good wine as may be grown in any latitude on this continent.

I am satisfied there are within 10 miles of your city, many spots thrown out in commons, and apparently worthless, which converted into vineyards by the hands of truly public spirited and industrious men, would some day lend no inconsiderable aid to the cause of *true* and *enlightened* temperance (not abstinence,) of which I think from your occasional hints, you are the sincere votaries and advocates.

From the Agricultural Report of the Patent Office, and your own notices of the Sargho Sugar Cane, I am inclined to believe it a valuable acquisition to our latitude, at least as a fodder crop, and as my ill luck with the Iverson Grass has not *rescued* me from my foible for new experiments, I have concluded to give the Chinese article an acre of good land for a trial next season. The Patent Office Report estimates the green crop of cane at seven tons; Mr. Orme, of Atlanta, Georgia, who advertises the Sargho Seed for sale in your December No. promises us more than three times that amount. How do these figures stand the test of Messrs. Harris and Slicer's experiments?

I am looking with much expectation for Mr. Calvert's solicited reply to "Constant Reader's" inquiries in the Dairy line. Virgil, so cleverly quoted and translated by Mr. Ryan, says something about cows with swelling udders in winter-time, and must have known pretty much "how it was done." The Alpine Dairy maids, also, have from time immemorial, been celebrated for their skill in producing the same phenomenon, without ever making a mystery of the *size and contents* of their slop buckets. I thought, furthermore, that the plain and frequent admonitions of the "Farmer," on the subject of gentle treatment and plentiful and succulent messes, had left little for your readers to desire under that head. But I may be mistaken, and if Mr. Calvert is in possession of a magic panacea, to be given in guano-pathic doses, to keep cows to their milk, and get it all out of them, we cannot thank "Constant Reader" enough for having drawn it out of him. Any thing at all to save time and trouble, in the fast age and fast country we live in.

By the way—the chemical constituents of milk being known, could not milk, cream, butter, and cheese, be produced as good as natural, by artificial means, so as to dispense at once and forever with cows, slop-buckets, dairy and all? A splendid problem for the first Davy or Liebig in kids, destined to graduate in your contemplated Agricultural College. I presume you intend to raise your own *State Chemists* hereafter?

My paper is coming to an end, and your patience has probably got there before my paper.—So I will close this document and the waning year, by wishing you, Messrs. Editors, many more years of health and happiness, and an ever increasing list of admiring and punctual subscribers, among whom I shall ever remain, most sincerely,

Your friend and obd't serv't,

DODDRIDGE.

St. Clara's, 31st December, 1856.

WYANDOTTE AND MEXICAN CORN—JAPAN PEA, CHINESE SUGAR CANE—ORANGE WATER MELON.

To the Editors of the American Farmer:

Having experimented in the cultivation of several new plants the past season, I send you the result, hoping it may be of interest to some of your readers.

First, perhaps, in importance, is the Wyandotte Corn; of three grains which I received of you, but one came up; that produced 7 stalks containing 11 ears in all, 6 of which were well filled, and 8 to 9 inches in length; the others were small and the grain shrunken. The entire lot when shelled—after lying six weeks in a warm room—measured 2¾ pints; a pint weighed 13 oz. which would make 52 lbs. per bushel. The grains are small and hard, but not "flinty," as stated by some, and

would, no doubt, make a fine, smooth meal, but would hardly answer for hommony. The plant grew about 8 feet high; the stalks were perfect—not suckers—and of uniform height. The seed was planted in a rich garden bed, and well hoed. I think this corn will prove a valuable acquisition.

I also received of you a package of the New Mexican White Flint Corn, which produced fine ears and large grains as hard as a gunflint. I had a few ears of it boiled in a green state for the table, and it proved so delicious that I carefully saved the entire product of the patch for planting next year. It will make superior hommony, but is rather too hard for meal.

I also obtained, through the strenuous efforts of a friend in Washington, a small quantity of the seed of the Chinese Sugar Cane. This was planted on the 24th of May in well-manured soil. The seed was long in coming up, and the young plants looked very delicate; but after reaching the height of a foot they became stout and vigorous. The strongest canes grew 12 feet high, and were, at maturity, 1¼ inches in diameter three feet above the ground. The juice in the canes is abundant, and flows out upon the slightest pressure. Of the quantity of sugar to be obtained from it, I can say nothing; but that the plant can be grown and matured in this latitude is beyond a doubt.

I received from a friend in Pennsylvania a few seeds of the Japan Pea, which were planted as directed in a row one foot apart. The plants grew 3 feet high, and threw out branches on all sides. Seven plants produced 1 pint of dry peas.

I also made an experiment in growing the Orange Water Melon which was entirely successful. The seed was planted the last week in April in hills of well-rotted yard manure, covered with two inches of earth; it came up in a few days, the vines produced abundantly, the melons varying from 4 to 10 inches in diameter. They exceed in flavor anything in the melon line I ever tasted, and when the rind is skilfully removed no fruit can look more beautiful.

Those of your readers, Messrs. Editors, who wish a few seed of either of the above plants, (except the Japan Pea,) can obtain them by addressing me, and enclosing a postage stamp.

Yours, respectfully,

A. W. Sweeny.

Buchanan, Md.

NEW FERTILIZER—IMPORTANT TO FARMERS.

We noticed in Jan. No., "*an important movement*," relative to the establishment of a manufactory of a manure, which it was supposed would supercede the use of Peruvian guano—we have since received the following communication on the subject, together with a copy of the Prospectus of the Philadelphia Co., and other particulars, which those interested can examine at our office. It will be seen that it is contemplated to establish a branch of the factory in this city, where no doubt a larger amount of the article will be sold than at any other place. As before remarked, the superintendance of the Philadelphia factory is to be entrusted to *Aaron Clement*, Esq., of that city, a gentleman well and favorably known to the agriculturists of Maryland and other Southern States, who has just been elected President of the Philadelphia Society for Promoting Agriculture, and who has for years been the V. President for Pennsylvania, of our Md. State Agr. Society. This augurs well for the enterprize, as one-half of the battle in establishing such a company, is to have men of well known character to conduct its affairs.

La Pierre Hotel,
Philadelphia, January 12th, 1857.

To the Editors of the American Farmer:

Gentlemen:—In the last number of your valuable journal, you allude to the movement now making for establishing manufactories of artificial guano from the blood and offals of animals, treated with sulphuric acid, and mixed with phosphate of lime—thus obtaining, without any extraneous matter, such as gravel, earth, &c., all the valuable components of the best Peruvian guano, in a purer and more concentrated form.

Having expressed an intention of making inquiries with a view to inform your readers further on the subject, I take the liberty of offering you the following information, being myself the principal share holder in the American patent:—

A Mr. Odam, manufacturing chemist in England, patented there, some five years ago, the treatment of the blood of animals with sulphuric and other acids, which were found to suspend all the elements of putrefaction and hold the dried matter ready for decomposition when brought in contact with the elements of the soil. He mixed his nitrogenous matter, so obtained, with phosphate of lime, which acted upon by the sulphuric acid, formed a *nitrogenous super-phosphate* of the most powerful kind.

Mr. Odam manufactured and sold the first year 5000 tons of this material. It gave universal satisfaction, surpassing Peruvian guano in its effects, whenever placed in competition with it.

The result was, such an overwhelming demand for it, the following year, as quite surpassed Mr. Odam's means. He then formed a Company upon the direction of which he succeeded in placing many farmers; thus securing the entire confidence of the agriculturists, *who knew themselves to be perfectly safe in such hands.* Mr. Jonas Webb, the most eminent sheep breeder in the world, (as well known in this country as in England,) and who grows five hundred acres of sweet turnips yearly for his own consumption, was elected Chairman of the Company and remains so still. They paid the patentee ten thousand pounds sterling (£10,000) for an *exclusive license* to work his patent, as appears by the official account published under the joint stock act, and paid him a royalty of two shillings per ton upon all the manure thus made.—Their fertilizer was applied last year to upwards of one hundred and fifty thousand acres of land.

Myself an agriculturist, farming 800 acres of my own land in Scotland, I tried, and was much surprised at the effects of this manure, so far exceeding in its results those of guano.

I subsequently made an arrangement with Mr. Odam, to patent his process in this country. On applying for a patent here, I was unable to procure one in consequence of Dr. Hare of Philadelphia, having patented, two years before the date of Mr. Odam's patent, the treatment of the "*soft parts*" of *animals* with *sulphuric* or other acids or with "copperas or other salts."

Both Mr. Odam and Dr. Hare disclaim the treatment of bones, or the *hard* parts of animals with acids, but one claims for treating the "*blood*," the other for treating the "*soft parts.*"

After taking the opinions of the best counsel in the country, and being advised that Dr. Hare's was a perfectly good and valid patent, *which could not be disturbed*, I found myself constrained to make an arrangement with Dr. Hare, which I accomplished, obtaining from him an assignment of his patent. I am led to understand that certain parties are now manufacturing a manure in which blood and sulphuric acid are used, but I have not as yet, direct evidence of the fact; such a manufacture is in violation of Dr. Hare's patent, and renders the *sellers*, the *consumers*, and the *manufacturers equally liable for damages.*

It is the intention of the patentees to create four Companies only, for manufacturing in the United States, one in New York, one in Baltimore, one in Philadelphia, and one in Boston. The city of Boston will furnish 30,000 tons of blood and offal per annum; the city of Philadelphia will furnish 60,000 tons annually; I am not aware of what we may calculate upon in N. Y. and Baltimore. I have the certificates of Dr. Hayes of Boston, and of Professors Booth and Frazier, of Philadelphia, which appear in the prospectus of the Philadelphia Co. which I enclose.

I proceed in a few days to N. York, after I organize a Company there, I shall visit Baltimore for the same purpose; our manure will be sold at $45 per ton of 2000 lbs.

Although myself from England, my family are Americans. My father being a New Bedford man, and my mother from Nantucket; my name may not be unknown to you as the brother of Mr. Francis Rotch of Morris (formerly called Butternuts, N. York State,) who was one of the earliest, if not the *first* importer of short horned stock in America.

I have undertaken the introduction of this manure into the United States, satisfied of its superiority over all other artificial manures; from practical experiments, myself, and the observation of five years trial in England, I believe it will effect highly beneficial sanatary results in your large towns and prove a great boon to your agriculturists, and a very profitable investment to the manufacturer. As you will see by the accompanying prospectus, in order to meet the present state of the money market, the smallest possible amount of capital will be called for in Philadelphia, and sufficient merely to make and introduce it next season, to a small extent, which is all that time will admit of. Wherever it is once introduced it will advertise itself.

I shall be happy to furnish you any further particulars, and am,

Your most ob't serv't, THOMAS D. ROTCH.

BURNING FLUIDS.—A correspondent of the *Ohio Cultivator* writes to the editor for a formula for making "Fluid" to burn in lamps. To which the editor very sensibly replies, "If our correspondent means by "Fluid," Camphene, Phosgene, and other villainous inventions for setting women and children on fire, we have no advice to give." That is a capital definition of all "Fluids" for burning in lamps—"Villainous inventions for setting women and children on fire."

DE BURG'S SUPER-PHOSPHATE vs. GUANO.

LONG MARSH, QUEEN ANNE CO., MD., February 16th, 1857.

To the Editors of the American Farmer:

GENTLEMEN,—In answer to the enquiry some time since in your valuable paper, as to the efficacy of the various fertilizers now in use, I will give you my experience with De Burg's Super-Phosphate.

In the fall of 1854, my son James used one bag on his wheat, and it had a good effect. In the fall of 1855, he used it again on wheat, and the difference between it and No. 1 Peruvian Guano, along side, was not perceptible. My brother-in-law, Col. Joel Thomas, also used it in the fall of 1855 on wheat, side by side with No. 1 Peruvian Guano, and we could not perceive any difference between it and guano, either in the growth or yield of wheat. I used De Burg on rye in 1855, and found considerable increase in my crop. I also used it on my corn last spring, and notwithstanding I thought it prevented the first planting from coming up, and the worms destroyed the second planting, I made more corn on the same field than I ever made before. I also tilled a small sedge field, and had enough De Burg to go on about one-half of it, and that where I applied De Burg was double the other in quantity and quality. I purchased about 10 tons last fall and used it on wheat.

Yours, &c. JAMES MERRICK.

COVERING OF WHEAT WITH SNOW.

[The writer had in a previous note, given us his views upon this question—and now renews the subject:]

My theory of the effect of snow on growing wheat, is sustained by my own experience, and that of many old farmers and close observers, and is worthy, I think, of consideration. If this protection would remain until all risk from severe frosts in spring, was over, I grant you it would prove beneficial; but it does not, and generally has the effect of a hot bed, to keep the wheat in a growing and tender state, during the winter months, only to disqualify it for encountering exposure to severe frosts in the spring, which penetrate the soil to greater depth, when this has been kept open by a heavy covering of snow, and rendered moist by its absorption in the thaw, than when the surface is frozen, and the earth about the roots of the plants kept dry, and consequently less conductive of frost.

The causes of injury to growing grain lie less above, than below the surface. In the first instance severe frosts may nip off that portion of the plant which appears above ground, without more permanent effect than having it eaten off by sheep; a process often attended with benefit, as it consolidates the soil, and occasions the plants to tiller; but, in the last, the ground is thrown up, and the plant with it, and when the one dries and subsides, the other is left with the roots exposed, from which the winds of March and April sweep the greater portion of the nutriment essential to their support. I may be in error, but my observation leads me to prefer having the ground about my wheat frozen, from the commencement of winter to its close, to having it subjected to the alternations of freezing and thawing, as must be the case in a climate like ours, where the changes from intense cold, to a mild temperature are so sudden and frequent. Yours, W. B. B.

Ellendale, Va., Feb. 11, 1857.

GREASING LEATHERS.

To the Editors of the American Farmer:—

GENTLEMEN:—In the Farmer of this month, among other matters, you call the attention of my agricultural friends to the care of their gear.

Having a practical knowledge of the subject, I write you a few lines. All leather should be washed with tepid water and soap, free of dirt, and scraped of all gummy matter, and well saturated with water; then apply the grease, and hang up in a house where it is warm enough to keep it soft. When thoroughly dry, rub off the residuum with a rag, else it will catch the dust, and cause the leather to break. The best oil for the purpose is neat's foot, next cod liver, but the most easily got at, and possibly the cheapest, is fresh butter (without salt). Greasing in the usual way with whale oil, is absolutely injurious. If the farmer would buy two pairs of boots, instead of one, and wear them alternate weeks, using the following compound both for uppers and soles; washing off the mud, and dampening the leather before the application, he will have dry feet, and find his two pairs equal to four in durability:—Take 1 pound fresh butter, ¼ lb. of tallow, ½ pint of tar, and warm them over the fire till thoroughly mixed.—Set it by for use, and apply it cold. In moderate weather, hang up the boots to dry. If he desires to polish them for church (where every farmer ought to be a regular attendant) let him first put on a thin coating of his wife's starch, and applying the blacking on that, he will have a polish.

Baltimore, Feb. 10, 1857. FARMER.

We commend the above as coming from the best authority.—EDS.

PROTECTION FROM DROUGHT.

To the Editors of the American Farmer:

Permit me to make one suggestion for your paper in regard to the protection of crops on a small scale from drought, which my observation of the past season has taught me. During the summer while it was very dry, I observed a vine to spring up through a bed of corn stalks, several inches deep, in a spot where a lot of cattle had been foddered the past winter; and when the drought had reached its highest point in August, and every thing else was perishing around it, this vine continued to grow with remarkable freshness and vigor; I opened the stalks and discovered the secret,—the ground was as moist as if there had just been a fine shower,—the stalks had prevented the evaporation of the moisture by the rays of the sun, and there was a sufficiency of dampness during the whole season to have produced a fine crop, so far as the covering extended. Now, why can we not cover our gardens hereafter entirely over in this manner with stalks, straw, leaves, &c., and thereby even in the dryest years secure a good crop of vegetables. D. E. D.

Please state in your next, what is the best disposition we can make of leached ashes on a farm. Are they valuable as a manure for corn? and if so, how should they be applied?

Shelbysville, Ky., Jan. 8, 1857.

Leached ashes are good for corn—mix half and half with plaister, and put a small handfull to the hill. They are excellent on grass land.—*Eds.*

REVOLUTION IN PERU.

We are watching, with much interest, the revolutionary movement in Peru, in hopes that some change may be effected, by which the present iniquitous monopoly in the great *staple* of that country, shall be done away. But we suppose that it will be most likely to result in driving one swarm away already gorged with the spoils, to make room for another more hungry, to prey upon their own people as well as ours. From what we can gather, the possession of the Guano islands, and the opportunity of having the pickings and "stealings," as one of our commercial papers terms it, is probably the real bone of contention among these *patriots*.

At the latest dates, the revolutionists had gained possession of the Chincha Islands, as they had before of nearly all the outer ports, and the present government was expected shortly to be dissolved, and the leaders of the revolutionary party to obtain the entire control of the national affairs. On the occasion of taking possession of the Chinchas, a manifesto was issued to the foreign ministers at Peru, in which it was promised that no change would take place in the manner of conducting the business at the Islands.

Although we had but few data on which to form an opinion, we have been apprehensive that our American interests have not been properly cared for by our Minister to Peru, otherwise some change, mutually beneficial for both countries, might have been long since effected. And we now find that a strong memorial has been forwarded to our government at Washington, by the American residents of Peru, against the continuance of Mr. Clay as our representative at that court. This remonstrance is signed by 144 Americans, and a large mass of evidence is appended, in support of the complaints made by the petitoners for the removal. These complaints are summed up under the following heads:—

"1st. That he is indolent, cold and indifferent to the rights of his countrymen, and entirely taken up with the follies and customs of the benighted people of Peru. 2d. *His honor and dignity are so compromised with the government of Peru, that it is impossible for him to represent an adverse interest.*—3d. He is wanting in ability and patriotism, possessing none of the qualifications requisite to the representation of a great nation. 4th. He is antinational in all his sympathies and tendencies, ever turning a deaf ear to the entreaties of his countrymen for protection. 5th. He has permitted American citizens, knowing them to be innocent, to rot and die in prison, denying them the protection of his flag. 6th. He wilfully neglects the interests of his country, by suffering the treaty between Peru and the United States to be daily violated, and the rights and liberties of his countrymen sacrificed with impunity by the Peruvian government. 7th. He refuses to collect just claims against Peru, known to be just, treating with indignity, neglect and indifference, Americans reduced to poverty by the Peruvian government."

It is added that farther evidence, sworn to by the witnesses giving it, goes to show that Mr. Clay is a receiver of gifts from the government to which he is accredited, and, in general, of such a character as renders him an unworthy representative of the United States abroad. If but half which is alleged against the American Minister in this appeal is true, it should receive the immediate attention of the government.

A counter petition has been forwarded, but it is said that of the 24 who signed it, only seven are American citizens.

As before intimated, we know but little of the facts in the case, but it will no doubt be to the interest of the country for a change, under the incoming administration of our government, and we sincerely hope, that some practical common-sense man will be found, well acquainted with the importance of the question of this guano trade, to represent our country at Lima. The subject is better understood in Maryland and Virginia, than elsewhere, and we earnestly trust that Mr. Buchanan will find among his friends and supporters in one of these States, a man of the right stamp for this mission, for we doubt if any other is of more importance to the interests of a large portion of the country than this.

THE GROWING WHEAT.

The unprecedented cold winter has, we have reason to fear, been very unfavorable for the growing grain. We have heard many complaints upon the subject during the past month. A letter to the editors, from New Kent Co., Va., says:—

"The weather since the first January has been unprecedentedly bad, certainly worse than I ever experienced in my life. I fear the wheat crop has been very materially injured, as the snow, though very deep in places, afforded but little protection to it, as the fall of snow was accompanied with such a heavy wind, as to leave the wheat fields naked, and exposed to the frosts and intense cold. In fact, during the month of December, we had a great deal of windy weather, which left the wheat on all light land very much exposed. What may be the result, is in the future; but the prospects are by no means flattering and encouraging to the hopes of the farmer. We are necessarily very backward in our preparations for the corn crop."

Another from King & Queen Co., Va., writes us, under date of February 3:

"We have just passed through one of the severest seasons ever experienced by the oldest inhabitants in this region, and very much fear the wheat has been seriously injured."

Another letter from same county, and date, says:

"We have had since first January freezing weather, with the exception of only a few days with us, rains and almost constant hard winds. The wheat, therefore, was poorly prepared to stand the snow-storm of the 18th January, as the roots were already exposed. Such was the wind then, that at least one-half of the wheat fields were left bare of snow; exposed to the coldest weather ever felt in this region, and the top of the soil carried to the less exposed places, so as to cover up the young wheat.—The early wheat may do well, but there is a good deal up late in this region."

The Republican, published at Culpepper C. H., Va., says that a great deal of the wheat in that county has been killed by the intense cold weather. Some farmers estimate the damage at two-thirds the crop, though the editor hopes for a better exhibit in the spring.

The Fredericksburg Recorder, says:

"Previous to the snow, the fields sowed with wheat seemed to have suffered greatly from the cold. We hear of whole regions of country where the wheat, in the fall bore every prospect of a fine crop, which now have the appearance of commons, with the grass killed by the frost, and without a vestige of verdure upon them."

We have many letters containing similar statements to the above, but we still hope that the result will not be found as bad as anticipated by the writers—indeed, since the snow and ice has disappeared, we have reason to believe that the damage anticipated to the grain is over estimated.

Preparation of Tobacco for Market.

In late numbers of our paper, the attention of planters has been called to the advantage of paying more attention to the manner of preparing their crop for market, as the appearance of the sample has frequently as much to do in effecting a good price, as the quality. From a circular from D. T. Williams, Esq., a tobacco factor in Richmond, we copy the following advice upon this subject. He says that the stock is probably very decidedly less than on first January, 1856, and the demand for all grades greater, and that tobacco will rule high during the present year. He adds:

"As far as can be ascertained, most of the crop now on hand was cut green; this portion of the crop should be prized in pliant order and quite hard. This will, in a great measure, neutralize the bad effects; and for such qualities, as also Lugs and Inferior Grades, I would advise early deliveries. That intended for shipping should be carefully assorted, neatly managed, and prized very straight, in good dry order, to weigh 1,500 to 1,650; this adds very materially to the sale of it, and this class will sell at any time during the year. (Have your hogsheads made very strong.) That designed for manufacturing purposes, will command fine prices, especially the Yellow Wrapper, a fair portion of which it was my good fortune to sell last season. Filling classes should be prized in safe order, and to average 1,200 pounds. The Yellow Wrapper should be managed with great care, and nicely packed in small tierces or boxes, to weigh from 200 to 400 lbs., the prices for which may be safely estimated at from $40 to $100 per 100 lbs. Owing to the limited supplies of this class heretofore received in this market, a large number of our manufacturers have been debarred from using it; but I am gratified to state, that a very decided disposition is manifested to increase this branch. It is considered a fair estimate that the Lug por-

tion of a fine crop does not exceed one-fifth, consequently, I unhesitatingly recommend to planters having fine crops, to decline offers of $20 per 100 pounds, average, and for very fine crops, with a great deal of yellow wrapper, I would advise them to decline $25. These are not idle calculations, but facts based upon my actual sales of last season, and the prospect this season is decidedly more flattering. The advance in Manufactured Tobacco is very decidedly greater in inferior grades. This truth should be conclusive, and serve to check the disposition to average sales; and I trust my friends generally will let nothing deter them from trying this market this season. Deliver the fine yellow in May and June, July at farthest. The market may now be considered as opened.—Only inferior grades are offering, which have commanded high prices."

Cotton in Europe--Important Facts for the consideration of Cotton Growers.

At the annual meeting of the Manchester (Eng.) Commercial Association, held in January, the annual report was read by the President, in which it was stated that the exports of England had increased to the close of the war, by £20,000,000, amounting during the year to £115,000,000, thus showing their commercial and manufacturing prosperity; but there was one cloud which darkened it, and to which he regretted having to refer.

"He alluded to the probable distress which was likely to be felt, and before long too, in this community and the manufacturing districts, from the inadequate supply of the raw material which afforded employment to a vast number of the inhabitants of that district. From 1847 to 1856 the imports of cotton from the United States into England had doubled. In 1847 the imports were 1,234,000 bales, and in 1856, 2,467,000 bales; but in the face of this, such was the progress of British manufactures and the extension of their cotton trade, that whereas at the end of 1846 the stock on hand at Liverpool was 450,000 bales, or twenty weeks' consumption—in ten years afterwards, that was in 1856, with an import of 2,467,000 bales, they ended the year with a stock on hand at Liverpool of only 332,000 bales, or eight weeks' consumption.

"The estimated crop from America this year was only 3,000,000, and at the present rate of consumption we could not, with that estimate, have anything to spare in hand at the end of the year, for at the present time the United States and the continent were using as much cotton as Great Britian herself. This, then, was a serious question. [Hear, hear.] How were they here to provide for the contingency to which he had alluded? The manufacturer here had been in the habit of putting himself into a railway train, going down to Liverpool and telling his broker to buy him so much cotton; but if this state of affairs to which we have alluded should be realized, what was to be done?

"He believed that if all the spindles now in operation continued going, and those additional ones which he (the chairman) knew were to be set in motion should be in use, there would not be a bale of cotton in Liverpool at the end of 1857. [Hear, hear.] The consequence would be that either cotton would get to such a price that those who were the weakest must stop their work and an immense number of people be thrown out of employment, or otherwise the entire stock of cotton would be exhausted. What, then, was to be done? Ten years ago they in that room had reflected on what was now approaching. Africa, Australia, the Cape of Good Hope, Natal and the West Indies had all been spoken of, and in time those places would, no doubt, supply this country with cotton.

"The East India Company ought long ago to have made that country a cotton-producing country; and if India had been in the hands of the Yankees, it would long ago have been such. [Renewed cheers.] There was land enough in the East Indies to grow all the cotton that was wanted here, and it was the duty of the company to facilitate its growth. [Hear, hear.] He did not say it was the company's duty to grow it themselves, but it was their duty to aid in its production, by making roads and supplying the means of irrigation so as to make the land available, and this they had neglected to do. [Hear, hear.]"

BREADSTUFFS IN EUROPE.

The Mark Lane (Eng.) Express, of 5th Feb., the most reliable source of information in Great Britain on the subject, presents the following review of the British Corn Trade, for the year 1856:

"Another year has just closed upon us, and placed its important records on the scroll of Time. Its commencement was characterized by the lodgment of the allied armies on Russian soil, with gigantic preparations for a renewal of the colossal struggle in the opening spring: all pacific counsels being well nigh considered impossible. But on the elapse of seventeen days, a rumor became general that Austrian intervention had commenced, which however, was as generally distrusted.—Still, these reports coming when prices were at about their highest point, viz., 76*s*. 10*d*. per quarter, produced an immediate effect throughout the country, from which the markets did not recover till the smallness of stocks towards harvest, and the heavy and devastating rains which then occurred, sent the averages up to 77*s*. 10*d*. on the 7th of August. From that point, with fluctuations varying from 1*s*. to 5*s*. weekly they have at last receded to 59*s*. 8*d*. per qr. The reduction traceable to the effect of peace amounted to about 10*s*. per qr., and transpired in the course of three weeks in February. We estimate the remaining difference of 7*s*. per qr., to the generally inferior condition and damage of the last year's crop. The spring opened with some fears as to the ravages of insects on the growing plants; but these reports happily applied to certain localities only, and there was little uneasiness on any score, except as to the holding out of stocks till harvest, even with the most liberal importations from America and the opportune aid of Russian supplies. On this head we admitted our doubts, and did our best to secure a sufficient supply; while the fact that the weekly sales noted at the close of August amounted to no more than 40,895 qrs. fully justified the views we entertained, for they were then little more than half the quantity of the previous season. As harvest time drew nigh, an almost tropical heat produced a simultaneous ripening of the grain throughout two-thirds of the kingdom. The first gatherings

had an Australian dryness, and a complete change to lower prices was in prospect, when down poured the rain upon the ripening corn. Yet while we deplore the measure of injury done especially in Scotland and the North, the nation pays but a moderate price for the necessaries of life; and our agricultural friends in the South, though somewhat disappointed are not without fair remuneration.—The stores of Russia availing till the new and abundant crop of America was gathered, millers have been at no loss as to the management of our own crop, which hitherto being only worked off in moderate quantities will be more serviceable after March. As to future prices we are inclined to consider them more susceptible of improvement than otherwise—the whole world having commenced its consumption with little if anything beyond a year's produce as its dependence. The crops of Spain and Portugal have proved an almost entire failure, those of Italy scarcely reaching to its necessities, France being certainly short, as well as Belgium and the Baltic. Russia itself not over-abundant, and America alone in a condition to meet serious claims, which have been so freely met already, that New York has not been so bare for years. Our own crop too, as a whole, being deficient, notwithstanding the extended growth of wheat, there promises now to be but little surplus at the season's end: while, therefore, we indulge in no apprehensions, we feel reminded of our dependence upon that Being who feeds the sparrow and sustains the world, and congratulate our common humanity that the 'goodness of God endureth continually.'"

NEW STRAWBERRY.

We have neglected heretofore to notice a new seedling strawberry, raised by Mr. Charles A. Peabody, of Columbus, Ga. We have a beautiful colored representation of the plant and fruit, sent us by that gentleman. He says, "It is of the largest size, measuring six or seven inches in circumference; it is of a beautiful form, attached to the calyx by a polished coral neck without seeds; rich, deep crimson color; fruit borne on tall footstalks, of most exquisite pine flavor; flesh firm, melting and juicy; and bears transportation better than any strawberry ever yet cultivated."

Mr. P. offers plants for sale at $5 per dozen, provided he gets one thousand subscribers; otherwise he will sell none. Persons subscribing will receive a colored plate of the vine and fruit by return mail, and as soon as the number of subscribers are made up, they will be notified, and the money can then be sent, and plants forwarded by mail.

Weights of Short-horn Cattle, sold by C. Hill, Esq., to E. E. Locke, Esq., of Lewis, Pa.

Annie, at 3 years and 4 months old, weighed 1290 lbs —her calf dropped 14th Dec. weighed 97 lbs. same morning. Webster, bull, 17 months old, weighs 1000 lbs.

Mr. A. Harshberger, of M'Veytown, Pa. has a Durham and Devon Cow, (age not given,) which weighed 1630 lbs., whose calf when dropped weighed 104 lbs. Mr. H. thinks this can't be beat in his State.

FLORICULTURE—MARCH, 1857.

Prepared for the American Farmer, by John Feast, Florist.

As the season advances, look over the stock of plants, and see if you are likely to fall short of any you would like to put out, if so, it is time enough to take off cuttings, and put into heat, and they will soon strike root; Verbenas, Petunias, Cupheas, and such plants, flower well in the borders in summer. Have the early annual plants potted off in readiness to plant out as soon as the weather will permit; by this means, a perpetual bloom will be kept up during the season, or until those sown in the open borders flower; these, and the other greenhouse plants, turned out in the borders, make a fine display the entire summer and fall months along with the Dahlia, which it is now time to bring forward, if an early bloom is desired, by placing a few on bottom heat to forward their growth, and have them potted off to plant out about the middle of May—at the same time plant out the roots not forwarded, which are intended for a late bloom—pot off seedlings when large enough.

Pelargoniums will now begin to grow—tie out the side shoots to form a fine head; keep them entirely free from insects and dead foliage, and give plenty of room, with air, if the weather is fine; turn the plants round if growing, with syringing occasionally. If these hints are carefully attended to, success will be ensured.

Azaleas—give plenty of water when in bloom—pot off all young plants and give them a little heat. Thrips are troublesome pests to Azaleas, but by fumigating two or three times successively, will rid the plants of them. Tobacco water is good as a remedy for them, by dipping the plants in a few times, which will also destroy them; they are generally worse on young seedling plants than grown specimens.

Camellias—Those plants which have done flowering, should be re-potted, if needed, in larger pots; but never change a Camellia, until it certainly wants it; if they have proper drainage they will do a long time without. Much damage is done to all plants in over potting, and especially the Camellia and Azaleas, and we condemn it as the worst fault connected with the cultivation of plants—in general, it may be well for soft wooded plants, but not for many in addition to those named.

Grafting and inarching may now be done—fertilize such flowers as will bear seed, from the pollen of good kinds—in this way new varieties are obtained.

Fuchias, and soft wooded plants will be pushing finely; cut off all straggling shoots, and train the plants in a handsome shape. As the season advances and the ground gets dry, some attention will be drawn to the out door operations, in getting the borders prepared, and replanting such things as need removing; also pruning and tieing up all creepers and climbing plants;—putting down box edging, and making walks; also attend to the bulbous roots that will soon be in bloom; keep clean and stir the soil a little between the rows, to facilitate their growth.

Plants in cold frames, will want looking over and re-potting, such as Carnations, Pinks, Daisys, Panseys, Hydrangeas, Spireas, Deutzias, and such, that will bloom shortly, and could be moved in the house to make a fuller display—give plenty of air at all times, if favorable, and more water as the plants begin to grow.

Hotbeds—prepare for the sowing of any early seeds, and such things as are wanted sooner than the regular time in open air.

☞ *Doddridge* has our thanks for a pleasant and well seasoned dish, and if it may be thought somewhat "spicy," let us lay that to the charge of his training in the "old country" where the "[illegible]gout" obtains. We agree with him, that "de gustibus non, &c." He will pardon us, however, if we suggest, that on the "Agricultural Department" he is, to our mind, rather high seasoned than substantial. His objection in his private note however, on account of the prevalence of "political corruption and pipe-laying," is one which may "give us pause." Those who oppose the matter, have little occasion to trouble themselves, however. The prospect of having such a Department established is very small. Farmers are a great people for "enduring the ills they have." The U. S. Agricultural Society, however, at its late meeting, determined to try its hand at the bellows, and we may yet live to see the day of its establishment.—*Eds.*

THE CHINESE SUGAR-CANE.

Since the days of Morus Multicaulis, nothing has attracted the attention of agriculturists to as great a degree as the introduction of the Sorgho Sucre, or Chinese Sugar-Cane. In the publication of the statements made by Richard Peters, Esq., and Ex-Gov. Hammond, and the history, mode of culture, &c., contained in the Circular from the Patent Office, our readers will find sufficient information for all present purposes; but we will continue from time to time to present such additional facts, as may be deemed useful in the prosecution of its culture, and the manufacture of sugar from the plant. Mr. Wm. Prince, the celebrated horticulturist of Long Island, N. Y., at the recent annual meeting of the United States Agricultural Society, read from the report of the proceedings of the Imperial and Central Horticultural Society of France, a statement of trials on an extended scale, of the manufacture of sugar from this cane, in very many of the departments of France, in which it was shown that the quantity is equal to that produced by the tropical cane in Louisiana and other regions, where the tropical plant is subjected by climate to culture as an annual plant. The analysis and details of manufacture are stated in the publication alluded to—and it is believed that the result will be more valuable in this country, inasmuch as the powerful heat of our sun, gives us an advantage over Europe, in consequence of the greater humidity of their atmosphere. Mr. Prince promised us a translation for the *Farmer*, of extracts from the proceedings of the Imperial Society, which, when received, we will present to our readers.

☞ Some of the seed of the Sugar cane can be had at our office.

A NEW OUTRAGE.—We learn that the Peruvian Guano Agency in this city have given notice to dealers in their commodity, that they will require an obligation from them, that they will not sell to parties engaged in the manipulation of Peruvian and Phosphatic Guanoes. If any thing from this source, could surprise us, this high handed measure, the paternity of which Don somebody, the Minister from Peru, is saddled with, would do so. We hope, that between the change in our own administration, and the revolution in Peru, new men may be employed in the management of affairs between the two countries, who have some common sense and knowledge of commercial usages, to say nothing of common decency and honesty.

P. S.—Since the above was written, we have received a printed copy of the contract, which we subjoin. If our readers can find its parallel in the history of trade and commerce, we should be glad to learn where:—

————Have this day purchased and received from F. Barreda & Brother,——Tons, No.—Peruvian Guano, at——Dollars per ton, and in consideration of the sale and delivery of the same to——at that price, and as part of the contract between us in regard thereto——do hereby obligate——not to sell or dispose of the same or any part thereof to any person or persons, now actually or hereafter to be engaged or interested in the mixing, adulteration, or other manipulation or preparation of Guano for sale or other disposition; nor to use or cause to be used the same or any part thereof for such purpose or purposes. And——further obligate——not to sell or dispose of the same, or any part thereof, to any but Farmers, or other Agricultural and actual consumers thereof, or persons whom——may know to be engaged in the *bona fide* business of retailing pure Peruvian Guano to Farmers or other Agricultural consumers thereof only. ——likewise obligate——not to export, or cause to be exported from the United States the said Guano, or any part thereof, and not to sell or dispose of the same, or any part thereof, to any person or persons for such exportation, or where——may have any reason whatever to believe that the same is intended to or will, or may, be so exported; and in case of any violation by or through or under——of any stipulations aforegoing——hereby bind——to pay to said F. Barreda & Brother, the sum of——dollars for each and every ton of said Guano, in respect whereto such violation may occur; the said sum being hereby agreed upon between us, not as a penalty, but as ascertained and liquidated damages, in the nature of an increased price for said Guano, by which we agree to abide as such and to the payment of which——on——part bind——executors, administrators and assigns, by these presents, signed, and sealed by——this——day of——1857.

Witness: SEAL.

☞ LIBERAL.—George Peabody, Esq., has donated $300,000 for the establishment of an institution in Baltimore, to embrace a Free Library, Medical Academy and Picture Gallery. The donation is to be increased hereafter to half a million of dollars. The late Moses Sheppard, of this city, has also left about $600,000 for an insane hospital.

Peruvian and Phosphatic Guanoes—Super-Phosphates, &c.

To the Editors of the American Farmer:

Gentlemen:—Having a little leisure time, I comply with your request, to let you "have a scrawl from my old pen," but having no new subjects to interest your readers, at present, I shall only notice those which are being discussed in your valuable journal.

As manures are engaging much attention at this time, it may not be uninteresting to some of your readers, to say a little on that subject—and as you are aware that I am an advocate of the free use of manures, I shall only discuss the subject as to the cheapness, compared with the results effected. I have tested several of the many kinds which have been offered for sale, and have compared all the information I could obtain from others, with my own experiments, and have come to the conclusion that Peruvian Guano is less liable to failure than any of the "quick" manures, being better adapted to the general character of the various soils and crops.—Its price, however, has been for some time, and is likely to be, so high, that it becomes doubtful whether it can be used alone with profit, and my attention has been directed to some other article to mix or apply with it, so as to obtain a speedy and more lasting result. To this end, I have been for some time reviewing the published results of the several manures introduced, and their combinations, and have arrived at the conclusion, that if we could obtain more Phosphate of Lime and Silica of Potash, in proportion to the Ammonia, than there is in Peruvian Guano, at a reasonable cost, it would be advisable. I have made some experiments to test these results, and have become convinced of its feasibility. In 1846, I applied 200 lbs. Peruvian Guano on an acre of wheat where I had before applied 500 bushels leached ashes per acre, and mould from an Indian shell bank, equally over the whole lot of nine acres. The crop of wheat in 1847, on the guanoed acre, was much the best; and though the lot of ground has since been equally manured, that acre still is perceptibly the best in any crop. Also in 1846, I applied 500 lbs. Ichaboe Guano per acre, for tobacco, on which land I had before applied 200 bushels leached ashes and 150 bushels shell lime, with some farm-yard manure on former crops, and, as an experiment, left out 10 rows without the guano, and the result was, that the tobacco was twice the size on the guanoed rows. The oat-crop in 1847, one-third better, and the clover-crop in 1848, more than double; and I have observed in most, if not all instances, where shell lime or ashes have been applied, that the action of the Peruvian Guano is more certain and durable. Whilst I think that Peruvian Guano alone has too large a proportion of ammonia, I cannot see any proof that there is a surplus of ammonia in an application of 300 lbs. to the acre, as an application of 600 lbs. to the acre will produce more grain on the same land if *rich* in Phosphate of Lime and Silica of Potash. But this is not the entire idea I wish to illustrate. It is this: What manures, which we can procure at their present market price and their several proportions, combinations, &c., will give the best and surest results? As I have intimated before, Phosphate of Lime, Silica of Potash and Lime, are the most essential *minerals* our Maryland and Virginia lands require, together with Ammonia, in its several combinations with vegetable matter. Some tell us that De Burg's Phosphate of Lime will do all that is needful; some say Mexican and Peruvian Guano, mixed, and some say Mexican Guano alone. These all have their advocates and certificates, and the farmers and planters are to some extent perplexed with the array of proof to show that each are best. I think there is one very strong objection to all the mixed manures offered for sale in this market, that though they promise very fair to produce a good effect, and probably some or most of them are mixed with much judgment, based on experiments, yet they cost too much; paying rather dear for the compounding—and to make this plausible, they tell us that great care and exactness is requisite to produce the good effect. I have not been able to see this fact, either in theory or experiment, as Phosphate of Lime, Silica of Potash and mineral manures, must be dissolved before they can be proper food for plants, of produce much chemical results on other ingredients. I am rather hard to convince that two kinds of guano can be increased in value 25 or 30 per cent. by an extra pulverizing or mixing, and the advice we are giving to our customers and friends is, to try all articles which are offered, which promise good results, but sparingly until they prove to be suited to their soil and crops. Under all the facts I have seen published, and heard, and my own experiments, I would prefer a mixture of Peruvian and Mexican or Colombian Guanos, (on soils that had been dressed with shell lime or ashes,) one-half of each, and where they had not been used, one-third Peruvian and two-thirds of the other Guano; and if the soil is very destitute of Phosphate of Lime, &c., one-fourth Peruvian and three-fourths Mexican and Silica of Potash in some form,—(woods scrapings, wheat straw, stable manure and ashes, are rich in Silica of Potash, and if to be purchased, is cheapest in leached ashes, which should be applied, say 25 to 100 bushels per acre). To make the comparative value of each as plain as possible, I will compare it with mixed guanos sold here. The standard of No. 1 A Peruvian Guano, is 15 per cent. of ammonia, (but it generally contains 16 per cent., and 29 per cent. of Phosphate of Lime). The standard of A A Mexican Guano is 55 per cent. of Phosphate of Lime, (the average is about 58 per cent.,) and their value is based on these results. The Mexican Guano at $22 per long ton, the Phosphate costs about $1.70 per 100 lbs., and the Peruvian Guano at $62 per long ton, the Phosphate of Lime is worth $11, which makes the Ammonia worth $51, which is $14.30 per 100 lbs., which will give the statement below:

1,000 lbs. Peruvian Guano, containing 160 lbs. Ammonia, worth	$22.64
Containing 290 lbs. Phosphate of Lime, worth	4.93
1,000 lbs. A A Mexican Guano, contanting 580 lbs. Phosphate of Lime, worth	9.89
2,000 lbs. Mixture, containg 8 per cent. Ammonia and 43½ pr ct. Phos. of Lime, costs	$37.29

(Some few lots of Mexican Guano have arrived here which contained from 60 to 70 per cent. of Phosphate of Lime, but such lots are rare as may be seen by the State Inspector's published statements.) The above table shows a saving in cost of 25 per cent. over that sold here in combination. We sold last fall about fifty tons of guanos to be mixed, and shall be able to report several test experiments after wheat harvest, (and hope that others will report their experiments in such combinations of guanos,) as I feel much interest in this subject, which is of vital importance to farmers and owners of poor lands.

There is another subject which has engaged my particular attention for several years, which I wish to notice. The plow is the most important agricultural implement in use, and many improvements

have been made in it during the last 20 years. I have critically calculated the defects of many of our best patterns, and found great difficulty in so modelling the mould, share and point, that the whole would be strong, simple and light of draft, and do good work. The Prouty & Mears' plow has been the lightest draught,—(see Reports of Maryland State Agricultural So.,)—and left the land lighter and better pulverized than any other plow, but it has several defects. The combination of mould, share and point, is complicated and subject to break, and not suited to hard land. The Chenowith plow will take hard soils, but does not leave the soil well pulverized and is heavy of draught. The Davis plow in soft soils performs well in some respects, but will not make a furrow of uniform depth, as it will settle down in soft places in the soil. I am pleased to believe that many of the objections named above are obviated in the new plow advertised in your last number by E. Whitman & Co.—(The Reynolds' Plow.) In April last, Mr. Reynolds arrived here from Ohio, with several sizes of his plows, and gave notice in the city papers that he would on the 2d of May last, test several of his plows on the Canton Company's Grounds, and invited competition. There was a large attendance, and those present appointed a committee to report the draughts and work of each plow, and being on that committee, I took particular notes and observations of each plow, and compared the result with a No. 5½ Prouty & Mears' Plow, which was used in competition, and that committee reported that a furrow slice of 15 inches wide and 7½ inches deep was turned with a draft of 225 lbs. by the Reynolds' Plow, while a similar furrow slice by the Prouty & Mears' Plow took a draught of 330 lbs. The quality of the work was about equal. This report was published in the Baltimore Clipper, aboul 7th May last.—The construction of combination of this plow will take heavy, hard land, turn and pulverize the soil well, and is of surprising light draught, while it is both simple and strong. We have sent two No. 1 and one No. 2 of these plows to practical farmers to test their superiority, and the reports are very favorable. Also there is a subsoil plow on the same principle. Wm. Robinson, Esq., (who was one of the committee,) bought the one we tested, and he informs me that it gave entire satisfaction. I am gratified to find that Messrs. E. Whitman & Co. has, after over six months negotiation, succeeded in making arrangements with Mr. Reynolds to make and sell his plows in this market; and I have succeeded in inducing them to get up patterns to manufacture two smaller sizes than Mr. Reynolds had, (Nos. 0 and 00,) and hope that all enterprising farmers will give one, at least, of those plows a trial. You will perceive that the prices are higher than are usually charged for such sized plows, the points and shares being made of steel, but this will be a saving in the end, as they can be cheaply repaired, and are not subject to break in stumpy or rocky land. The smallest size No. 00, is a 7 inch mould, and the sizes increase about one inch to each No.

As we have several orders on hand from some of the most practical farmers, we will let you hear from this plow again.

I will close, as I have written more than I intended, and may be more than yon will print, so adieu for the present. Yours, respectfully,

R. N. MILBURN,
149 West Pratt St.

GUANOES AND SUPER-PHOSPHATES.

Howard Co., Feb. 18th, 1857.

Messrs. Editors:—

In consequence of the high price of Peruvian Guano, I was induced to write an article for publication in the last number of the American Farmer, *which was designed entirely for the benefit of the farmers.* Since the publication of the article, several gentlemen, including an intelligent farmer of Montgomery County, have enquired of me, my reasons for italicizing that part of the article, which had reference to my having used upon the land which I have in wheat, a mixture of Peruvian and Mexican Guanoes, which had improved the land, and as I said, and now repeat, no doubt contributed to the growth of the wheat.

But if my memory serves me properly, it was not my intention that any part of the article should be put in italics, but it was necessary to refer to it, so as to give a full and perfect statement. The land in which I had corn and potatoes, and where I used the Super-phosphate of Lime, had no advantage of a previous application of mixed guanoes; it is poor land, and some four years ago had a light application of Peruvian Guano, upon a wheat crop; yet the effect exceeded my expectation, and that of any application of Peruvian Guano made by me, particularly where it was applied in the corn hill. I neglected to state in the article published, that I used a barrel of Colombian Guano in the corn hill and broadcast, at the same time I used the Super-phosphate, with but little effect. I have no doubt but the Super-phosphate of Lime is more prompt in its action than the mixed guanoes, owing, I suppose to its being rendered soluble by the action of sulphuric acid. I intend to continue the use of Rhodes' Super-phosphate of Lime, believing as I do, that it is the most economical mixture that I have ever used, since Peruvian Guano was sold at $46 20 the ton, and although I cannot speak from experience, yet I am inclined to think, it will be found to be more permanent than the Peruvian Guano. My object in requesting an insertion of this in the American Farmer, is to correct any misapprehension that may exist as to the article published last month.

I am, very respectfully, your obd't serv't,
William W. Worthington.

[In the necessary supervision of matter for insertion in the "Farmer" we exercise a discretion in which we are liable to make too free with the favours of our correspondents. In this case it struck us that the two applications of Peruvian and Mexican Guano in three years, the latter being rather remarkable for the permanency, than the promptness of its action, had too important a bearing on the experiment not to be especially noted, and more especially when the quantity of Peruvian Guano used (125 lbs.) with the Super-phosphates was considered. While we might have done so more effectually by an editorial note, a more convenient and ready method of calling attention to the fact, was to underline the words conveying it, to give it emphasis, not thinking it would, in any degree impair, but rather forward the evident intent and bearing of our friend's letter, to give the benefit of his experience for the use of others. If it seem otherwise to him we claim his indulgence, on the necessity of the exercise of our supervision without the opportunity of conferring with the writers of communications.—Ed.]

THE MARCH NO. OF THE FARMER.

We present to our readers this month, an exceedingly valuable, practical number. Not a line contained in our sheet, but will be found worthy of the attention of those for whom we cater. The number of pages of reading matter, *independent of advertisements*, is 36, being 4 more than our terms call for. We have been obliged to issue a double sheet, this month, to enable us to meet the demand of our advertising friends, and give 64 instead of 32 pages, beside 4 pages of the cover. The advertisements in this month's Farmer, should be examined critically by every farmer and planter. We note the *new* advertisements, viz:

Jno. A. Schwager & Co., New York, brings to the notice of our readers, a new article, the "Empire Animal Fertilizer," which he deems superior to Peruvian Guano and the various artificial manures.

J. M. Thorburn & Co., New York, offer a large stock of Spring Garden and other Seeds, Shrubbery, Trees, &c.

Jno. S. Reese & Co., Baltimore, again draw attention to their Manipulated Guano.

J. J. & F. Turner, Balt., give additional testimonials in favor of De Burg's.

J. Montgomery & Bro. of Balt., offer their celebrated Wheat Fan, still further improved—with the best of references, for its value.

Saml. Feast & Sons, Balt., a choice selection of Strawberry and other plants, from the collection of the late Dr. Edmondson.

C. M. Saxton & Co., N. York, sundry new books, among them the Cotton Planters' Manual.

Thos. Jones, Jr., Warsaw, a valuable Farm in the Northern Neck of Virginia, one of the best locations in the Old Dominion.

T. T. Nelson, Balt. Co., stands his "Vermont" at Towsontown, season commencing 1st April.

J. L. Darlington, of the Morris' Nurseries, West Chester, Pa., has a large collection of the small fruits, shrubbery, and ornamental trees, besides his general Nursery.

Richardson & Hoffman, Balt., are Agents for Prof. Mapes' Super-Phosphates and other manures.

Jno. Kettlewell, of Balt., offers the Manipulated Guano to the agricultural community, in a series of remarks and evidences of its value, which will attract the attention of the public. The union of the Ammoniacal with the Phosphatic Guanoes is highly approved of by many, and gaining ground in the estimaion of the farmer and planter.

G. Y. Worthington, Balt. Co., has Chester Pigs, &c., for sale.

Morgan Horses, several fine animals can be had on application at this office.

The Brooklyn Fertilizer Manufacturing Co., introduce to our readers a new fertilizer, their Ammoniated Tafeu, made from night soil, blood, &c.

L. Tucker & Son, Albany, ask attention to their Illustrated Annual Register, an admirable little work.

F. H. Grupy, will pay the highest price for Hides, and keeps Leather of every description.

Wm. W. Dungan, Commission Merchant, has removed to No. 90 S. Charles st. His advertisement, hailing from his old stand, was printed before we received his card of removal.

Wm. H. Emory, Balt., publishes his card as a Commission Merchant, on Bowly's Wharf.

Edw. Wilkins, Chestertown, Md., offers cuttings of the Catawba Grape for sale.

Wheeler, Melick & Co., Albany, N. Y., renew their claims to the attention of farmers and others, for their Railway Horse Power, Threshing Machinery, &c.

Obed Hussey, Balt., notifies the farmers that they should be forwarding their orders in time for Reapers and Mowers, to avoid disappointment. He gives strong reasons for the claims to patronage he puts forth.

Wm. Baer, Balt., proposes to analyse soils, visit farms, purchase salts and guanos, &c.

Saml. Cottingham, Balt., (successor to Cottingham & Johnson,) offers his Implements, Machinery, &c., to the farmers and planters, who may be purchasing their spring and summer supplies.

Chas. R. Pearce, Balt., as usual offers Mexican Guano of his own importation.

Stirling & Ahrens, Balt., also offer Mexican Guano, of their own importation.

Thos. Norris, Balt., (late Rice & Norris,) Agricultural Implements and Machinery, Seeds, &c.; also sells Manny's Reaper and Mower.

Griscom & Burroughs, Balt., offers to supply any quantity of Alum Lime, for agricultural or building purposes, from their kilns in Balt. Co.

W. Whitelock & Co., Balt., has a full supply as usual, of Guanoes, Seed, &c.

Hy. D. Emery & Co., Chicago, Ill., has the Chinese Sugar Cane Seed, and other Garden and Field Seed.

Several fresh Milch Cows, and a Suffolk Pig are offered, reference at this office.

R. Sinclair & Co. present their Corn Drill.

A Farm for sale in Gloucester Co. Va., a description and particulars can be had at this office—worthy attention of those wishing investments in real estate in Va.

Messrs. Dorsey, offer the valuable estate of the late Judge Dorsey—near this city—an investment that will no doubt pay well in a little while.

H. L. Aitken, Elkridge, offers the Walnut Lawn Farm, some 7 or 8 miles from Baltimore.

H. Best, near Annapolis, also offer a number of tracts of land for sale, near the Capitol of our State.

T. Felton will stand his celebrated Black Hawk Ticonderoga, this Spring, near this city.

The Morgan Horse, Young Gifford, is offered for sale, or if not sold, will be offered for service.

Malcom & Co., offer all kinds of Guano, to their customers.

W. W. Dingee & Co., York, claims to have a great improvement in Threshing Machines.

T. T. Martin & Bro., Baltimore, advertise their card as Wholesale Dealers in Liquors and Cigars, and General Commission Merchants.

Wm. Harris, Baltimore, offers all kinds of Guns.

Mr. Kettlewell, in a card, assures his customers that the course of the Peruvian agency will not deter his furnishing them with his manipulated guano.

Burns & Sloan, Lumber Merchants.

S. Ault & Son, Garden Seeds, &c.

Robt. Turner offers all kinds of Guano.

Harding & Hopkins, Balt., Commission Merchants.